ORDER NO. SD 7504-1016

Service Manual

Technics by Panasonic

HI-FI COMPONENTS

Technics by Panasonic

FM/AM STEREO RECEIVER

MODEL SA-5351

* This service manual includes only the changes of the SA-5350 Technics (ORDER NO. SD7503-1008) except for parts list.
* **This manual** should be filed with the service manual for model SA-5350 Technics (ORDER NO. SD7503-1008)
* **When servicing** model SA-5351 this service manual and the SA-5350 Technics (ORDER NO. SD7503-1008) service manual should be used together.

■ REPLACEMENT PARTS LIST -----Model No. SA-5351 (for European Military)

NOTES:

1. Part numbers are indicated on most mechanical parts. Please use this part number, for parts orders.

Ref. No.	Part No.	Description	Per Set (Pcs.)	Remarks
INTEGRATED CIRCUITS				
IC101	AN217BB	FM IF, AM RF & AM IF Amplifier	1	
IC102	SVISN76115N	PLL Type FM MPX	1	
TRANSISTORS				
TR1	3SK39-Q	FM RF Amplifier	1	
TR2	2SC922-M	FM Mixer	1	
TR3	2SC839-H	FM Oscillator	1	
TR101,102,103,104,105	2SC829-C	FM IF Amplifier	5	
TR106, 107	2SC945-P2	FM Muting Switching	2	
TR201, 202	2SC1327-T	Equalizer Amplifier	2	
TR203, 204	2SA721-T	Equalizer Amplifier	2	
TR(601,602)×2	2SA666A-AD	Differential Amplifier	4	
TR (603) ×2	2SC1573-Q	Pre Driver Amplifier	2	
TR (604) ×2	2SC828-R	Thermo Compensation	2	
TR (605) ×2	2SC1567-R	Driver Amplifier } Use in Pairs	2	
TR (606) ×2,	2SA794-R	Driver Amplifier }	2	
TR (607) ×2	2SC1667Ⓢ-Q	Power Amplifier } Use in Pairs	2	
TR (608) ×2	2SA837Ⓢ-Q	Power Amplifier }	2	
TR701	2SA699-R	Ripple Filter	1	
TR702	2SA684-Q	Speaker Protection Relay Switching	1	
TR703, 704	2SC1318-R	Speaker Protection Relay Switching	2	
DIODES				
D1, 2, 101	OA99	AM & FM AGC Detector	3	
D102, 103	2-OA99	FM Discriminator	1 pair	
D104,105,106,107,108	MA150	FM Muting & Meter Detector	5	
D701	SVDAS2HB10	Rectifier	1	
D702, 703	RVD10D1	Rectifier	2	
D704	SVDA10D1M	Rectifier	1	
D705	SVDAEQB0120	20V Zener	1	
D706	SVDARD10E	10V Zener	1	

Ref. No.	Part No.	Description	Per Set (Pcs.)	Remarks
THERMISTORS				
TH (601) ×2	RRT251	Driver Circuit	2	
COILS and TRANSFORMERS				
L1	SLAA4W1-3	FM Balun Coil	1	
L2	SLAA4N9	FM Antenna Coil	1	
L3	RLQY25S5	Choke Coil	1	
L4	SLDA4N18	FM DET Coil	1	
L5	RLQY15G5	Choke Coil	1	
L6	SLOA4N9	FM OSC Coil	1	
L7,101,103	SLQX101-2D	Choke Coil	3	
L8	SLFA2E22	AM Antenna Coil	1	
L9	SLOA2C6	AM OSC Coil	1	
L102	SLIA4B1	FM AGC Coil	1	
L104, 105	SLM1Z7-K	Low Pass Filter	2	
L701	SLQX101-2D	Choke Coil	1	
T1	RLI7W105S-T	AM 1st IF Transformer	1	
T2	RLI2C450P-T	AM 2nd IF Transformer	1	
T102	SLIA4C541	FM Discriminator, Primary	1	
T101	SLIA4C56	FM Discriminator, Secondary	1	
T103, 104	SLIA4C241-T	FM Muting & Meter IFT	2	
T1001	SLT5Q7	Power Transformer	1	
CERAMIC FILTERS				
CF101, 102, 103	SVF107MA8A	FM IF Circuit, Red, 10.7MHz	each 3	
	SVF107MA8B	FM IF Circuit, Blue, 10.67MHz		
	SVF107MA8C	FM IF Circuit, Orange, 10.73MHz		
	SVF107MA8D	FM IF Circuit, Black, 10.64MHz		
	SVF107MA8E	FM IF Circuit, White, 10.76MHz		

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Ref. No.	Part No.	Description	Per Set (Pcs.)	Remarks
VARIABLE RESISTORS				
VR101	EVLS3AA00B54	50kΩ (B), Muting Level Adjustment	1	
VR102	EVLS3AA00B24	20kΩ (B), Signal Meter Adjustment	1	
VR103, 104	EVLS3AA00B14	10kΩ (B), PLL VCO & Separation Adj	2	
VR501	EVE2DA088G25	200kΩ (G), Balance Control	1	
VR502	EWF49A037BF5	250kΩ (B), Volume Control	1	
VR503, 504	EWF3NA037C15	100kΩ (C), Bass & Treble Control	2	
VR (601) ×2	EVLS0AA00B52	500Ω (B), ICQ Adjustment	2	
VARIABLE CAPACITORS				
CV1~5 (CT1~4)	ECV5MX25X20G	Tuning Gang, AM/FM (with Trimmer)	1	
CT5	ECV1ZW06P35	FM OSC Trimmer, 6pF	1	
COMPONENT COMBINATIONS				
Z1	EXAF203Z471	AM Detector	1	
Z101	EXA5DL04C	FM Detector	1	
Z701, 702	RXAF103P22HD	Hum Cancel, 0.01μF(×2), 500WV	2	
SWITCHES				
S501	SSRA81	Selector Switch	1	
S502,503,504,505	SSHA57-1S	Tape 1, 2, Mode & Filter Switch	1	
S506, 507,	SSHA56S	Loudness & Muting Switch	1	
S1001	ESRC124F30CE	Speakers Selector Switch	1	
S1002	ESB7040T	Power Source Switch (with Button)	1	
S1003	SSRA71S	Voltage Selector Switch	1	
RELAY and METER				
RLY701	SSYA1	Speakers Protection Relay	1	
	SSMA25-2	Signal Meter	1	
FUSES and LIGHTS				
F1	XBAS2B3002	3A Fuse, Power Source	1	
F2	XBAS1B3003	3A Fuse, Power Source	2	
F3, 4	XBAS1A3301	3.3A Fuse, Circuit Protection	2	
F6	XBAS2B1501	1.5A Fuse, Power Source	1	
PL1~6	XAM35K	Dial Lamp, 6.3V 0.25A	6	
PL7	XAMR38S150A	Stereo Eye, 6.3V 40mA	1	
CABINET PARTS				
CA1	XTS3+8BK	Black Screw, Panel M'tg.	2	
CA2	SGWA1410	Front Panel	1	
CA3	SBNA116E	Knob, Speaker Switch, Bass, Treble, Volume, Balance & Selector Switch	6	
CA4	XTV3+8CK	Black Screw, Panel M'tg.	2	
CA5	SBCA56	Button, Push Siwtches	6	
CA6	SBNA131E	Knob, Tuning	1	
CA7	SGUA34	Glass Plate	1	
CA8(BLK)	SKAA830-1	Cabinet (Black Wood)	4	
CA9(BLK)	XSB4+16KS	Screw, Black Cabinet M'tg.	4	
CA10	SGPA680-1AF	Rear Panel (with Name Plate)	1	○
	SGT11070	Name Plate (Spec. Label)	1	○
CA11	SMA197	Mounting, AM Antenna Coil	1	
CA12	SMAA6-2	Band, AM Antenna Coil	1	
CA13	SJFA5201-1	Fuse Holder, Circuit Protection	1	
CA14	SJSA66-1	Socket, AC Outlet	2	
CA15	RHR111	Bushing, AC Cord	1	
CA16	SJFA4401-2	Terminal, Antenna	1	
CA17	SJFA3020	Terminal, Input	1	
CA18	XSN26+12	Screw, Fuse Cap M'tg.	1	
CA19	SJFA5202-1	Fuse Cap	1	
CA20	SJFA4803-1	Terminal, Speakers	1	
CA21	SJAA3-1	AC Cord	1	
CA22	SKUA440	Bottom Board	1	
CA23	SKL145	Leg	4	
CA24	XTV3+8CFYR	Red Screw, Bottom Board M'tg.	5	
CA25	RHR106	Bushing, AM Antenna Lead	1	
	XSN3+6FYRS	Red Screw, Bottom Board M'tg.	1	
CA26	RJS31-1	DIN Socket, Tape Monitor	1	
CHASSIS PARTS				
CH1	SDHA58-2	Mounting, Meter & Dial Scale	1	○
CH2	SHRA916-1	Lock Pin, Dial Scale	2	
CH3	SKDA530	Dial Scale	1	
CH4	SUSA69	Spring, Meter	1	
CH5	SUMA8-1	Mounting, Dial Scale	1	
CH6	SJJA16	Jack, Headphones	1	
CH7	RDY34	Shaft, Pulley (RDR20)	4	
CH8	RDR20	Pulley, Dial Cord	4	
CH9	RNW150-2	Lock Washer, Pulley	5	
CH10	SDUA11	Filter, Dial Light	1	
CH11	XTV3+8CK	Black Screw, Lamp House M'tg.	4	
CH12	XNG3CS	Nut, Lamp Holder M'tg.	2	
CH13	SMPA59	Lamp House	1	
CH14	SDPA8	Pointer, Dial	1	
CH15	SJSA206	Holder, Dial Lamp	1	
CH16	SDZ051-1	Cord, Dial {200cm (78¾")}	1 roll	
CH17	RDR23	Pulley, Dial Cord	1	
CH18	RDY32	Shaft, Pulley (RDR23)	1	
CH19	SHGA204	Rubber Cushion, Stereo Eye	1	
CH20	SDTA10-1S	Tuning Shaft, Complete	1	
CH21	SDDA471S	Drum, Tuning	1	
CH22	SDSA4121	Spring, Drum	1	
	XXAR3H6S	Screw, Drum M'tg.	2	
	SJS5405	4Pin Socket, Lead Connector	2	
	SJS5603	6Pin Socket, Lead Connector	1	
CH23	SHRA919	Lock Pin, Dial Light Filter	3	
	SJS41	Pin Clamp, (SJS5405, SJS5603)	14	
ACCESSORIES				
A1	SSAA3	FM Antenna Cord	1	
A2	XBAS1A3301	Circuit Protection Fuse (3, 3A)	2	
A3	RJP5	Pin Plug	4	
A4	RJP16A5	AC Plug	1	
A5	RJP17AS	AC Plug	1	
PACKING PARTS				
P1	SPPA16-1	Soft Cover	1	
P2	SPS5	Pad, AM Bar Antenna	1	
P3	SPP163	Polyethylene Bag	1	
P4	SPS1	Pad, Left Side	1	
P5	SPS3	Pad, Right Side	1	
P6	SPS13	Pad, Bottom Board	1	
P7	SPG531	Carton Box,	1	○
P8	SQF1027	Printed Matter, Complete	1	○
P9	----------	Deletion	----------	
P10	----------	Deletion	----------	

■ CHANGE OF PARTS NO.

Refer No.	Change of Part No. SA-5350 ➡ SA-5351		Description	Per Set (Pcs.)
C138, 139	ECQM05223JZ	ECQM05393JZ	0.039μF, 50WV, ±5%, Polyester	2
CA8(BRN)	SKAA830	----------	Deletion, Brown Cabinet	0
CA9(BRN)	XSB4+16BVCS	----------	Deletion, Brown Cabinet M'tg. Screw	0
CA10	SGPA680-1A	SGPA680-1AF	Rear Panel. With Name Plate (Spac. Label)	1
	----------	SGT11070	Addition, Name Plate Only	1
CH1	SDHA58-1	SDHA58-2	Mounting, Meter & Dial Scale	1
P7	SPG499	SPG531	Carton Box	1
P8	SQF969	SQF1027	Printed Matter, Complete	1
P9	SPN5081	----------	Deletion, Inner Carton Box	0
P10	SPNA187	----------	Deletion, Pad	0

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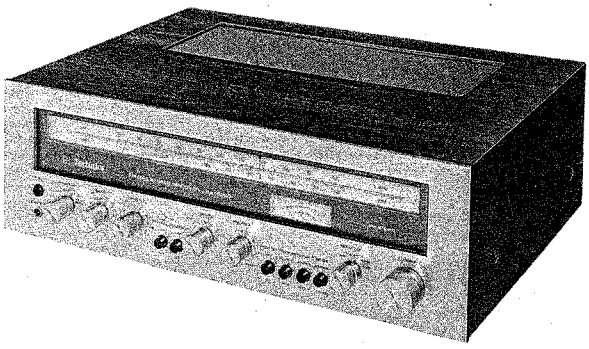
ORDER NO. SD 7503-1008

Service Manual

Technics
HI-FI COMPONENTS
Technics

FM/AM STEREO RECEIVER

MODEL SA-5150



MODEL SA-5350

TECHNICAL SPECIFICATIONS (IHF)		SA-5150	SA-5350
AMPLIFIER SECTION			
1 kHz continuous power both channels driven		20W+20W(4Ω), 17W+17W(8Ω)	37W+37W(4Ω), 33W+33W(8Ω)
20 Hz~20 kHz continuous power (SA-5350) both channels driven		----------	30W+30W(4Ω), 28W+28W(8Ω)
40 Hz~20 kHz continuous power (SA-5150) both channels driven		16W+16W(4Ω), 16W+16W(8Ω)	----------
Power bandwidth (both channels driven at 8Ω)		5 Hz~35 kHz, −3 dB	5 Hz~35 kHz, −3 dB
Total harmonic distortion		0.8 %	0.5 %
Intermodulation distortion		0.8 %	0.7 %
Residual hum & noise		0.7 mV	0.6 mV
Damping factor		20 (8 Ω)	20 (8 Ω)
Input sensitivity and impedance	PHONO	2 mV/50 kΩ	2 mV/50 kΩ
	AUX	180 mV/30 kΩ	180 mV/40 kΩ
	TAPE PLAYBACK	180 mV/30 kΩ	180 mV/40 kΩ
S/N (IHF, A)	PHONO	70 dB	70 dB
	AUX	90 dB	90 dB
Frequency response	PHONO	RIAA standard curve ±1 dB	RIAA standard curve ±0.5 dB
	AUX	7 Hz~60 kHz, ±3 dB	5 Hz~60 kHz, ±$\frac{1}{2}$ dB
Tone control	BASS	50 Hz, +10 dB~−10 dB	50 Hz, +10 dB~−10 dB
	TREBLE	10 kHz, +10 dB~−10 dB	10 kHz, +10 dB~−10 dB
Loudness control (volume at −30 dB)		50 Hz, +10 dB	50 Hz, +10 dB
High filter			7kHz, −6dB/oct.
FM TUNER SECTION			
Frequency range		88~108 MHz	88~108 MHz
Sencitivity		1.9 μV	1.9 μV
Total harmonic distortion	STEREO	0.4%	0.4%
	MONO	0.3%	0.3%
S/N		70 dB	70 dB
Frequency response		20 Hz~13 kHz, ±$\frac{1}{2}$ dB	20 Hz~13 kHz, ±1 dB
Alternate channel selectivity		70 dB	70 dB
Capture ratio		1.8 dB	1.6 dB
Image rejection at 98 MHz		50 dB	50 dB
IF rejection at 98 MHz		60 dB	70 dB
Spurious response rejection at 98 MHz		65 dB	65 dB
AM suppression		50 dB	50 dB
Stereo separation	1 kHz	40 dB	40 dB
	10 kHz	30 dB	30 dB
Leak carrier		−40 dB	−45 dB
AM TUNER SECTION			
Frequency range		520~1610 kHz	520~1610 kHz
Sensitivity		30μV, 350μV/m	30μV, 230μV/m
Selectivity		25 dB	25 dB
Image rejection at 1,000 kHz		40 dB	45 dB
IF rejection at 1,000 kHz		50 dB	50 dB
GENERAL			
Power consumption		164 W	300 W
Power supply		110/120/220/240 V	110/120/220/240 V
Dimensions (W×H×D)		16$\frac{17}{32}$"×5$\frac{1}{2}$"×13$\frac{31}{32}$" (420×140×355) mm	16$\frac{17}{32}$"×5$\frac{1}{2}$"×13$\frac{31}{32}$" (420×140×355) mm
Weight		15.5 lb. (7 kg)	21.2 lb. (9.6 kg)

For accommodating future improvements, specifications are subject to change without notice.

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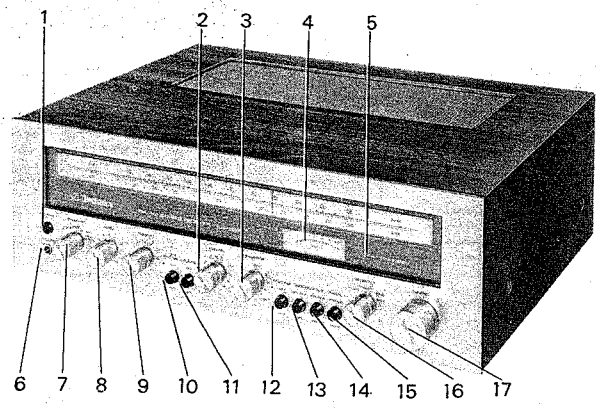
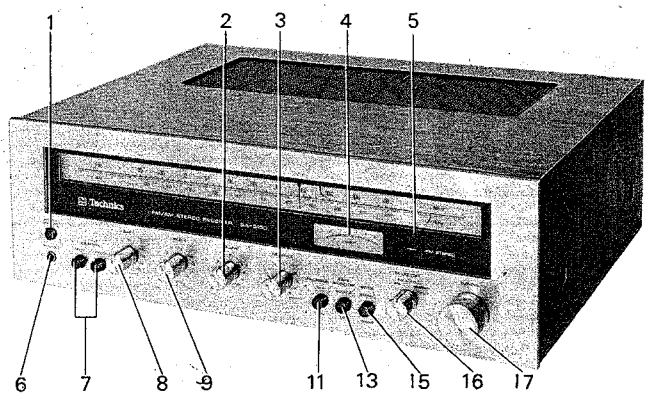
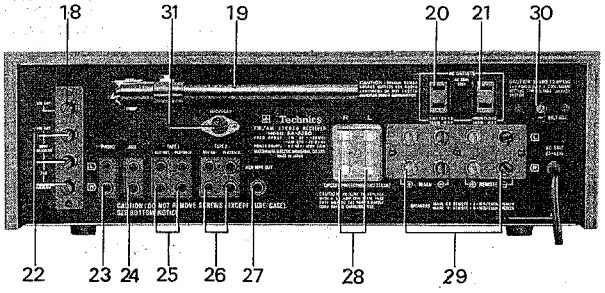
■ LOCATION OF CONTROLS



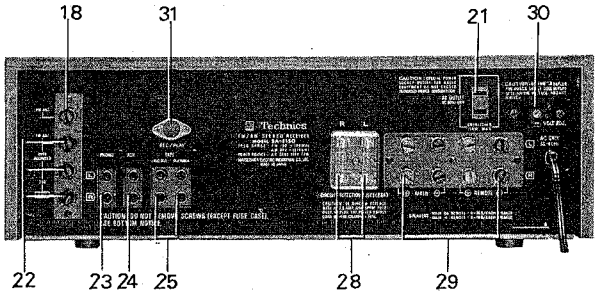
Model SA-5350



Model SA-5150



Model SA-5350

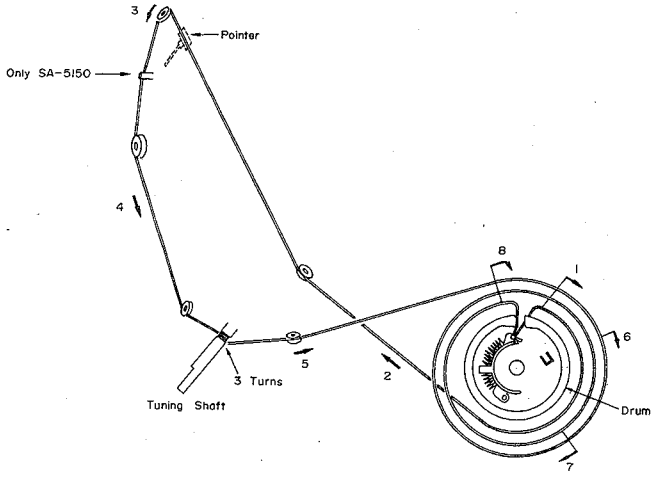


Model SA-5150

1. POWER SOURCE SWITCH
2. VOLUME CONTROL
3. BALANCE CONTROL
4. SIGNAL METER
5. STEREO INDICATOR (STEREO EYE)
6. HEADPHONES JACK
7. SPEAKERS SWITCH
8. BASS CONTROL
9. TREBLE CONTROL
10. FM MUTING SWITCH
11. LOUDNESS SWITCH
12. HIGH FILTER SWITCH
13. TAPE MONITOR (TAPE 1) SWITCH
14. TAPE MONITOR (TAPE 2) SWITCH
15. MODE SWITCH
16. SELECTOR SWITCH
17. TUNING CONTROL
18. AM ANTENNA TERMINAL
19. AM FERRITE CORE ANTENNA
20. AC OUTLET.....Switched (Not Attach for England)
21. AC OUTLET.....Unswitched (Not Attach for England)
22. FM ANTENNA TERMINALS
23. PHONO INPUT TERMINALS
24. AUX INPUT TERMINALS
25. TAPE MONITOR (TAPE 1) TERMINALS
26. TAPE MONITOR (TAPE 2) TERMINALS
27. 4 CH. MPX OUTPUT TERMINAL
28. CIRCUIT PROTECTION FUSES
29. SPEAKER TERMINALS
30. VOLTAGE SELECTOR SWITCH
31. TAPE MONITOR DIN SOCKET

■ DIAL CORD INSTALLATION GUIDE

1. Dial cord length is 78$\frac{3}{4}$" (200cm).
2. Tuning gang is positioned at maximum capacity. (Frequency is minimum)
3. Arrow marks (1~8) indicate correct order and direction of stringing dial cord.



ALIGNMENT INSTRUCTIONS.....READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

Note : The "I_{CQ}" adjustment should be started 1~2 minutes after setting the power switch to the ON position.

	CIRCUIT	DC VTVM CONNECTION	ADJUSTMENT POINTS	REMARKS
	MAIN AMP ALIGNMENT.....Only Model SA-5350			
1	I_{CQ}	Connect DC VTVM between point Ⓩ [Positive side] and point Ⓨ [Negative Side]. (Left and Right channels)	VR601 [Left and Right channel]	Make adjustments so that the indication on DC VTVM becomes 5 mV.

Notes :

1. Volume control .....Maximum
   Variable (FM-IF Alignment)
2. Balance control .....Center
3. Mode switch .....Stereo
4. FM muting switch .....Off (Model SA-5350)
5. Selector switch .....AM (AM Alignment)
   FM Auto (FM Alignment)
6. Tape monitor switch.....Source
7. Maintain line voltage at rated voltage.
8. Output of signal generator should be no higher than necessary to obtain an output reading.

	SIGNAL GENERATOR or SWEEP GENERATOR		RECEIVER DIAL SETTING	VTVM or SCOPE CONNECTION		ADJUSTMENT POINTS		REMARKS
	CONNECTION	FREQUENCY	[DISTANCE]	SA-5350	SA-5150	SA-5350	SA-5150	
	AM ALIGNMENT							
2	High side through 0.001μF to TP5, Common to chassis.	455 kHz (Set for England to 470kHz)	Point of non-interference.	**TP1**	**TP104**	T1 (AM 1st IFT) T2 (AM 2nd IFT)		Adjust for maximum output.
3	Fashion loop of several turns of wire and radiate signal into loop of receiver.	600 kHz (30% Mod. with 400 Hz)	600 kHz [15.7mm (5/8")]	Speaker terminals of set.		L9 (AM OSC Coil) L8 (AM ANT Coil)		Adjust for maximum output.
4		1500 kHz (30% Mod. with 400 Hz)	1500 kHz [191.3mm (7 17/32")]	Speaker terminals of set.		Trimmer CT4 (OSC) CT3 (ANT)	Trimmer CT5 (OSC) CT4 (ANT)	Adjust for maximum output. Repeat steps (3) and (4).
	FM-IF ALIGNMENT							
5			Point of non-interference.	Speaker terminals of set		T101 (DISCRI IFT) [Primary]		Adjust for maximum output noise.
6			Point of non-interference.	Between **TP4** and **101** terminal	Between **TP101** and **TP102**	T102 (DISCRI IFT) [Secondary]		Make sure that DC VTVM becomes 0V.
	FM-RF ALIGNMENT							
7	Connect to FM antenna terminal through FM dummy antenna (300Ω).	90 MHz (100% Mod. with 400 Hz)	90 MHz [29.2mm (1 1/8")]	Speaker terminals of set.		L6 (FM OSC Coil)* L4 (FM DET Coil) L2 (FM ANT Coil)		Adjust for maximum output.
8		106 MHz (100% Mod. with 400 Hz)	106 MHz [186.2mm (7 5/16")]	Speaker terminals of set.		Trimmer CT5 (OSC) CT2 (DET) CT1 (ANT)	Trimmer CT3 (OSC) CT2 (DET) CT1 (ANT)	Adjust for maximum output.

* Use six cornered alignment tool for aligning FM OSC coil (L6).

	FM-MONO DISTORTION ALIGNMENT							
9	Connect to FM antenna terminal through FM dummy antenna (300Ω).	98 MHz (100% Mod. with 400 Hz)	98 MHz	Connect distortion meter to speaker terminals.		T102 (FM DISCRI) [Primary]	T101 [Primary]	Adjust for minimum distortion
10			Point of non-interference.	Connect DC VTVM to **TP4** and **101** terminal.	Connect DC VTVM to **TP101** and **TP102**.	T101 (FM DISCRI) [Secondary]	T102 [Secondary]	Make sure that DC VTVM becomes 0V.
	SIGNAL METER ALIGNMENT							
11	Connect to FM antenna terminal through FM dummy antenna (300Ω).	98 MHz (30% Mod. with 400 Hz) [Output 20dB]	98 MHz	Signal meter of set.		T104	T103	Adjust for maximum indication.
12						T103		Adjust for minimum indication.
13		98 MHz (30% Mod. with 400Hz) [Output 60dB]	98 MHz	Signal meter of set.		VR102		Adjust for about 4.7 point of signal meter indication.
	MUTING LEVEL ALIGNMENT.....Only Model SA-5350							
	Note : FM muting switch to ON position.							
14	Connect to FM antenna terminal through FM dummy antenna (300Ω).	98 MHz 100% Mod. with 400Hz) [Output 28dB, IHF]	98 MHz (Input Level 16dB)	Speaker terminals of set.		VR101		Adjust so that output can be obtained.

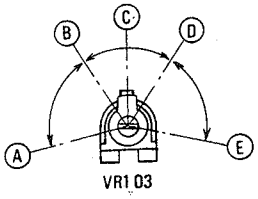
FM MPX PILOT ALIGNMENT

	When use the frequency counter	When not use the frequency counter
15	① 98 MHz Non-modulation mono signal applied to set. ② Connect the frequency counter through 100 kΩ resistor to **TP3 (SA-5350)** [TP103 **(SA-5150)**], Common to chassis. ③ Adjust VR103 to 19 kHz±100 Hz.	① Stereo signal applied to set or receive the FM stereo station. ② Adjust VR103 to lighting point of stereo indicator and sement contactor of VR103 as shown fig. 1.

Notes :

Stereo-modulator ..... Connect stereo-modulator output to EXT. MOD. terminal of signal generator.
Inter OSC ..... 1 kHz Pilot signal modulation 10%
Signal generator ..... Frequency approximately/98 MHz, Output level/72dB (IHF), Modulation mode to FM
1. Selector switch ..... FM Auto
2. Balance control ..... Center
3. Mode switch ..... stereo
4. Maintain line voltage at rated voltage.

	SIGNAL GENERATOR CONNECTION	STEREO MODULATOR MODE and MOD. RATE	INDICATOR (VTVM or SCOPE)	ADJUSTMENT POINTS SA-5350	ADJUSTMENT POINTS SA-5150	REMARKS
	STEREO INDICATOR LIGHTING LEVEL ALIGNMENT ..... Only Model SA-5150					
16	FM antenna terminal through dummy antenna. (Output 30dB/IHF)	Pilot signal to ON (L+R)	Stereo indicator (Stereo Eye) of set.	VR101		Stop turning immediately when the stereo eye light up for optimum adjustment.
	SEPARATION ALIGNMENT					
17	FM antenna terminal through dummy antenna.	L (and R) 30% Mnd.	VTVM across speaker terminals through low pass filter. Refer to fig. 2.	VR104		Adjust for minimum right (and left) output.



A~B, D~E : Stereo OFF Position.
B~D : Stereo ON Position (Indicator Lighting)
C : Adjust Point of Pilot Circuit.

Fig. 1

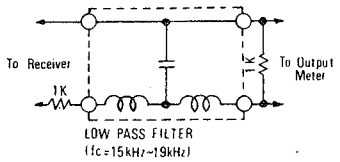
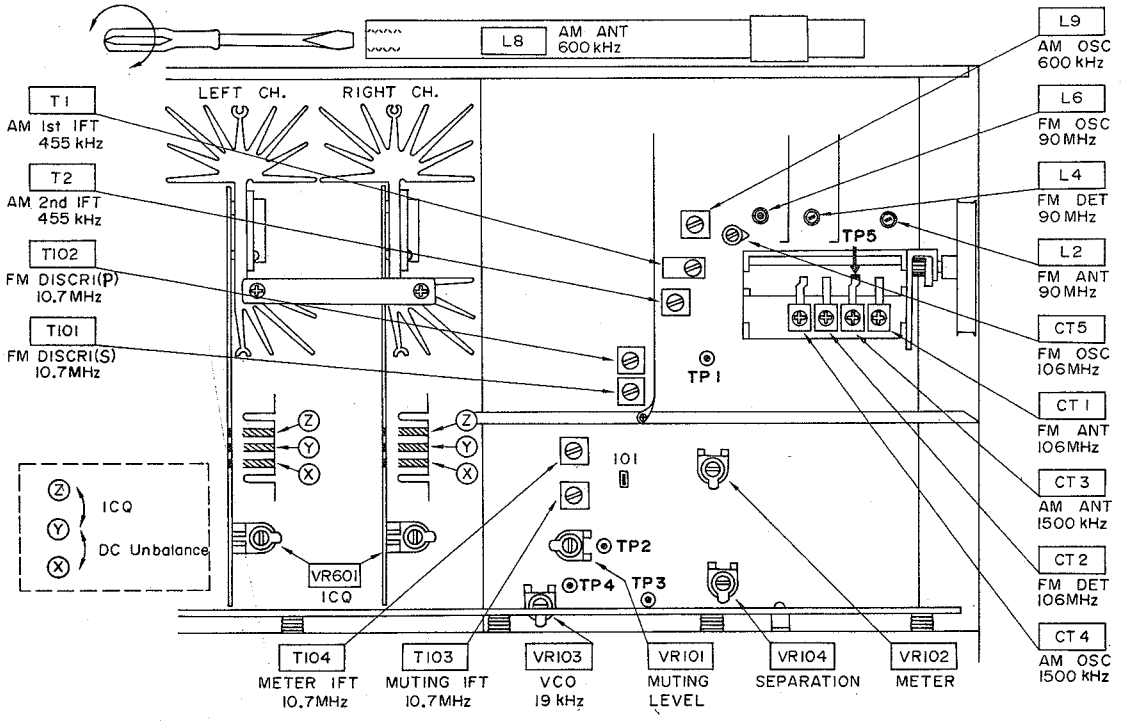


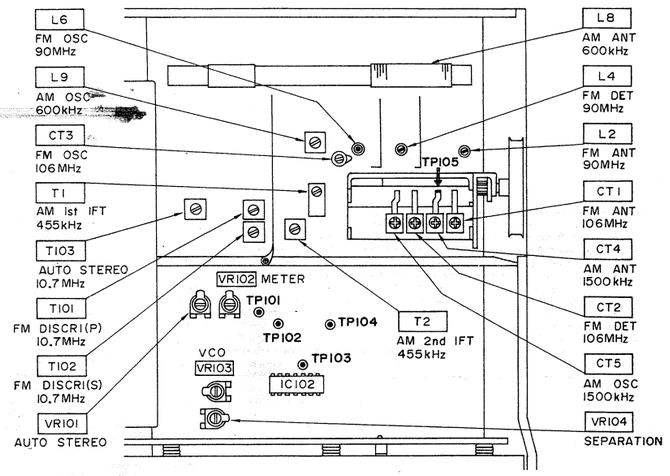
Fig. 2

Model SA-5350 ALIGNMENT POINTS

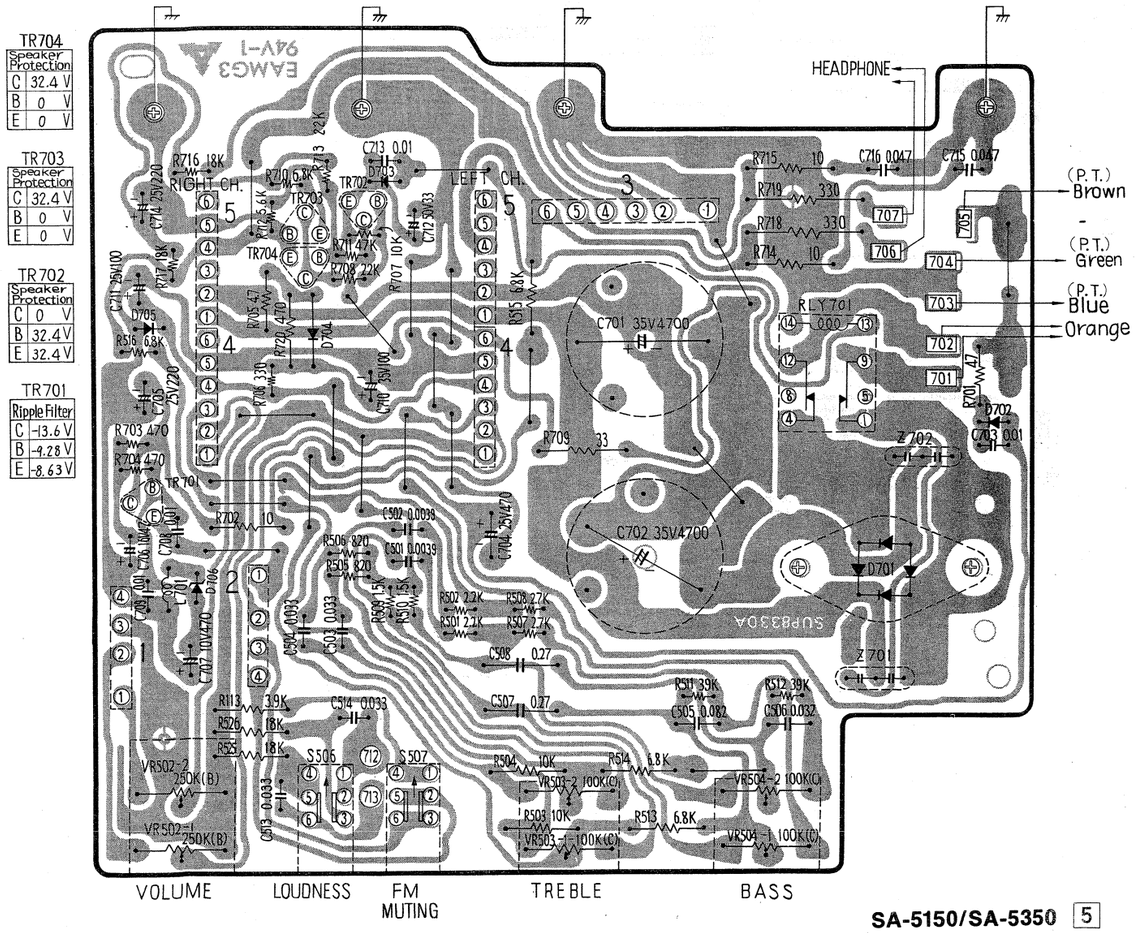


■ **Model SA-5150**

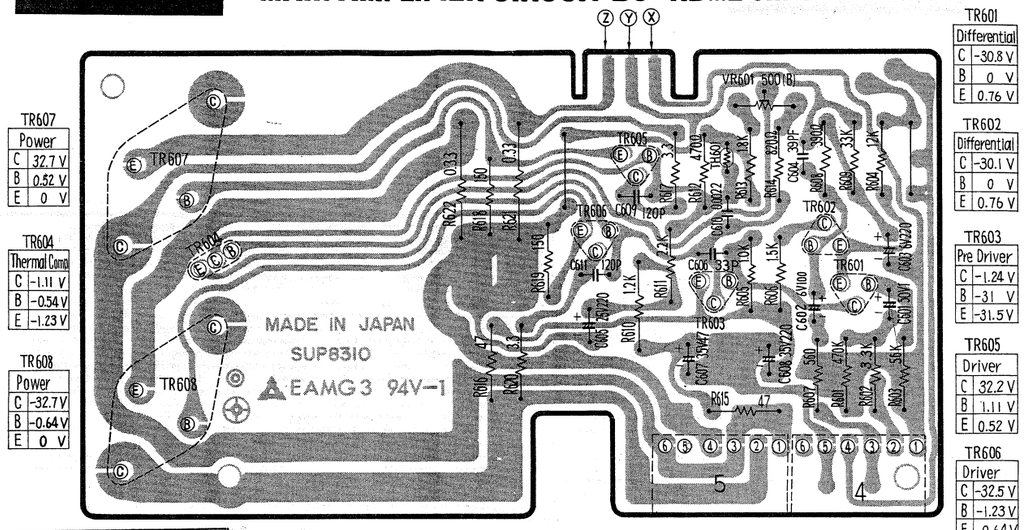
ALIGNMENT POINTS



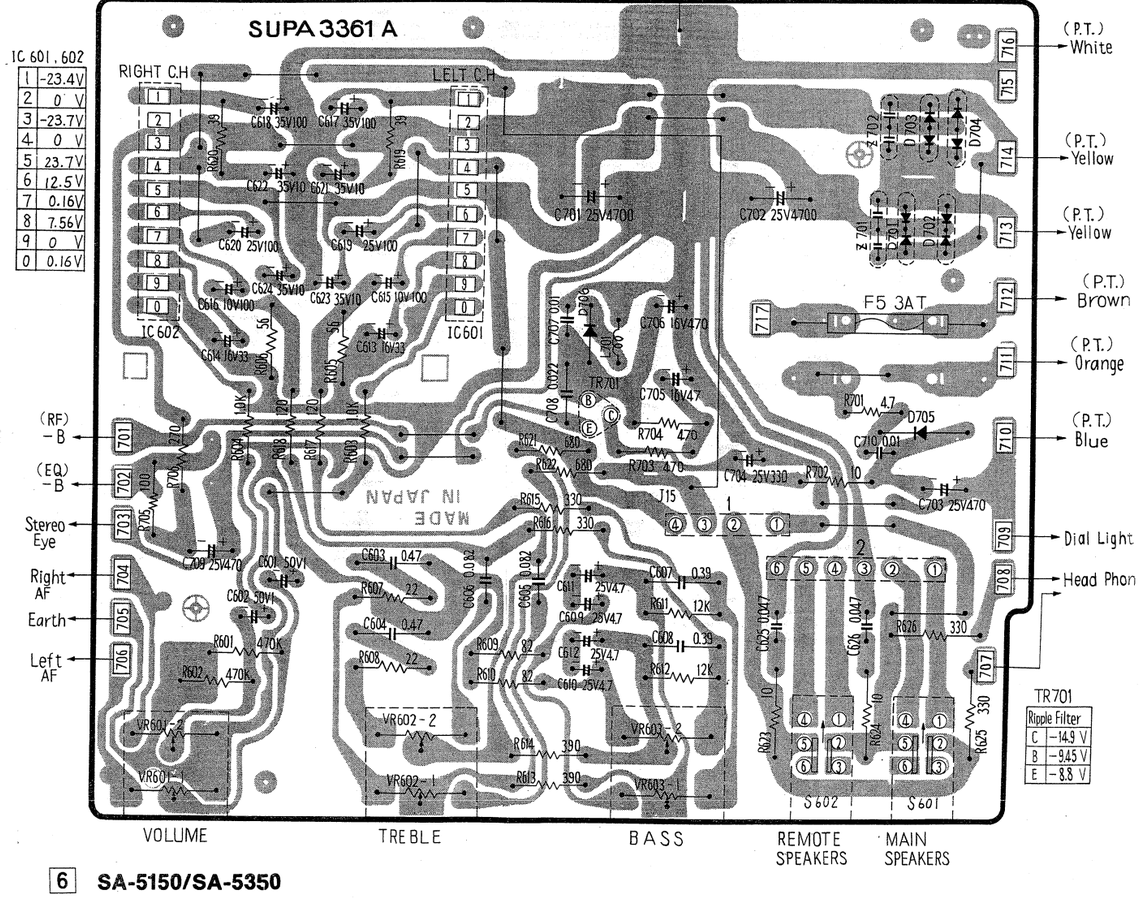
■ **Model SA-5350** **POWER SOURCE & TONE CONTROL CIRCUIT BOARD**



■ **Model SA-5350** **MAIN AMPLIFIER CIRCUIT BOARD...L ch. or R ch.**


TR607 Power C 32.7 V B 0.52 V E 0 V
TR604 Thermal Comp C -1.11 V B -0.54 V E -1.23 V
TR608 Power C -32.7 V B -0.64 V E 0 V
TR601 Differential C -30.8 V B 0 V E 0.76 V
TR602 Differential C -30.1 V B 0 V E 0.76 V
TR603 Pre Driver C -1.24 V B -31 V E -31.5 V
TR605 Driver C 32.2 V B 1.11 V E 0.52 V
TR606 Driver C -32.5 V B -1.23 V E -0.64 V
MADE IN JAPAN
SUP8310
EAMG3 94V-1

■ **Model SA-5150** **POWER SOURCE & TONE CONTROL CIRCUIT BOARD**



■ **Model SA-5350**

FM/AM TUNER, AF AMPLIFIER & EQUALIZER CIRCUIT BOARD (Bottom View)

Printed Resistor

Circuit View on Top of P.C.B.

	AF
C	8.11 V
B	16.8 V
E	17.5 V

	AF
C	8.44 V
B	16.7 V
E	17.6 V

	AF
C	16.8 V
B	1.82 V
E	1.3 V

	AF
C	16.7 V
B	1.8 V
E	1.33 V

TR3

	FM
C	0 V
B	-3.87 V
E	-4.58 V

	FM
C	-0.54 V
B	-7.32 V
E	-8.04 V

TR1

	FM
D	0 V
G1	-8.58 V
G2	-4.29 V
S	-8.22 V

IC102

	FM MONO	FM STEREO		FM MONO	FM STEREO
1	0 V	0 V	8	-8.7 V	-8.4 V
2	-5.8 V	-5.7 V	9	-6.6 V	-6.5 V
3	-4.1 V	-4.1 V	10	-7.1 V	-7.1 V
4	-2.1 V	-2.1 V	11	-6.6 V	-6.4 V
5	-2.1 V	-2.1 V	12	-6.5 V	-6.4 V
6	0 V	-7.5 V	13	-6.5 V	-6.4 V
7	-8.7 V	-8.6 V	14	-5.7 V	-5.7 V

SELECTOR

MODE

TAPE 2

TAPE 1

HIGHT FILTER

BALANCE CONTROL

AUX

REC OUT (TAPE 2)

PLAYBACK

REC OUT (TAPE 1)

PLAYBACK

TR107

	MUT-ON	MUT-OFF
C	-2.51 V	-0.05 V
B	-7.9 V	-8.53 V
E	-8.58 V	-8.53 V

TR106

	FM
C	-8.54 V
B	-7.94 V
E	-8.58 V

TR105

	FM
C	0 V
B	-3.49 V
E	-4.2 V

TR104

	FM
C	-0.71
B	-3.47
E	-4.2

TR103

	MUT OFF
C	-0.5 V
B	-6.2 V
E	-6.9 V

TR102

	MUT OFF
C	0 V
B	-6.2 V
E	-6.9 V

TR101

	FM
C	0 V
B	-7.27 V
E	-7.98 V

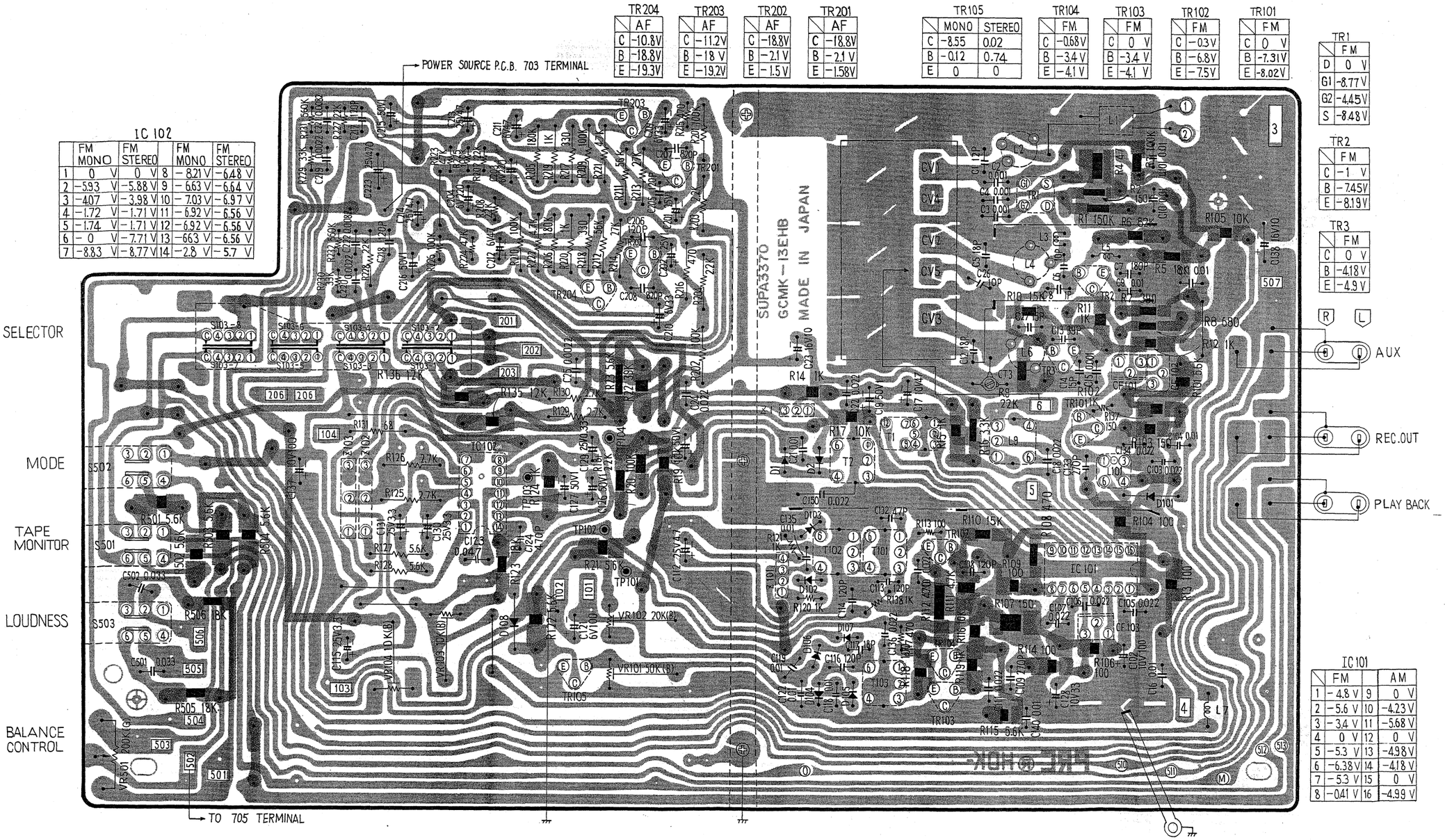
IC101

	FM		AM
1	-4.3 V	9	0 V
2	-5.1 V	10	-3.6 V
3	-3.2 V	11	-5.1 V
4	0 V	12	0 V
5	-4.9 V	13	-2.4 V
6	-5.9 V	14	-3.5 V
7	-4.7 V	15	0 V
8	-0.6 V	16	-4.4 V

■ **Model SA-5150**

FM/AM TUNER, AF AMPLIFIER & EQUALIZER CIRCUIT BOARD (Bottom View)

Printed Resistor
Circuit View on Top of P.C.B.



TR204	AF
C	-10.8V
B	-18.8V
E	-19.3V

TR203	AF
C	-11.2V
B	-18 V
E	-19.2V

TR202	AF
C	-18.8V
B	-2.1 V
E	-1.5 V

TR201	AF
C	-18.8V
B	-2.1 V
E	-1.58V

TR105	MONO	STEREO
C	-8.55	0.02
B	-0.12	0.74
E	0	0

TR104	FM
C	-0.68 V
B	-3.4 V
E	-4.1 V

TR103	FM
C	0 V
B	-3.4 V
E	-4.1 V

TR102	FM
C	-0.3 V
B	-6.8 V
E	-7.5 V

TR101	FM
C	0 V
B	-7.31 V
E	-8.02 V

TR1	FM
D	0 V
G1	-8.77 V
G2	-4.45 V
S	-8.48 V

TR2	FM
C	-1 V
B	-7.45 V
E	-8.19 V

TR3	FM
C	0 V
B	-4.18 V
E	-4.9 V

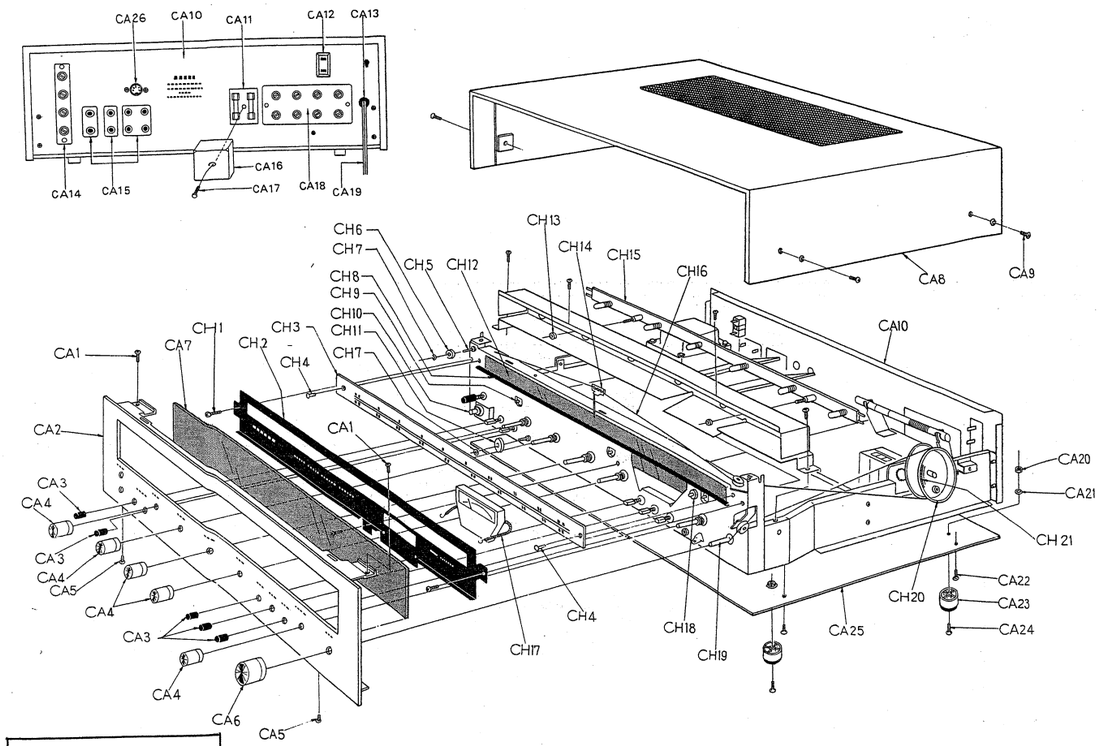
IC 102

	FM MONO	FM STEREO		FM MONO	FM STEREO
1	0 V	0 V	8	-8.21 V	-6.48 V
2	-5.93 V	-5.88 V	9	-6.63 V	-6.64 V
3	-4.07 V	-3.98 V	10	-7.03 V	-6.97 V
4	-1.72 V	-1.71 V	11	-6.92 V	-6.56 V
5	-1.74 V	-1.71 V	12	-6.92 V	-6.56 V
6	-0 V	-7.71 V	13	-6.63 V	-6.56 V
7	-8.83 V	-8.77 V	14	-2.8 V	-5.7 V

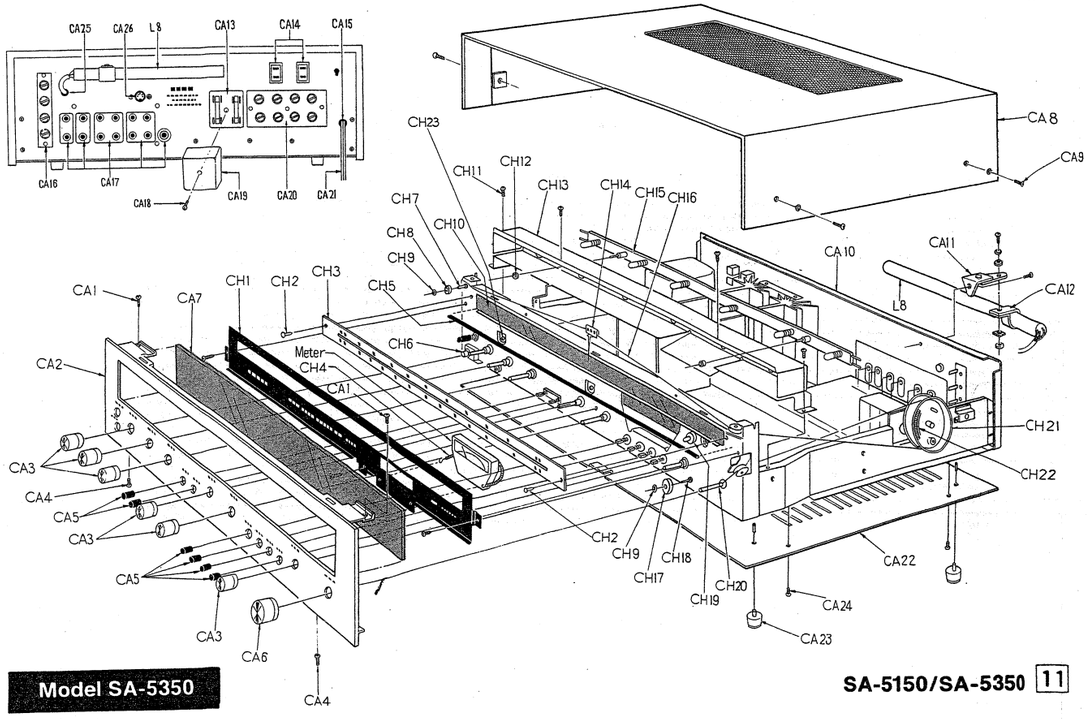
IC 101

	FM		AM
1	-4.8 V	9	0 V
2	-5.6 V	10	-4.23 V
3	-3.4 V	11	-5.68 V
4	0 V	12	0 V
5	-5.3 V	13	-4.98 V
6	-6.38 V	14	-4.18 V
7	-5.3 V	15	0 V
8	-0.41 V	16	-4.99 V

■ CABINET & CHASSIS PARTS LOCATIONS



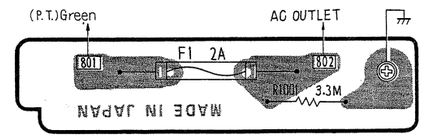
Model SA-5150



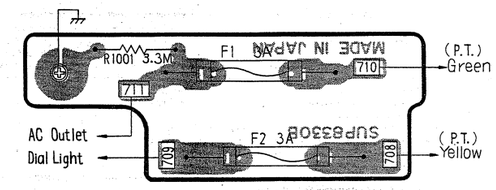
Model SA-5350

■ AC FUSE CIRCUIT BOARD

Model SA-5150

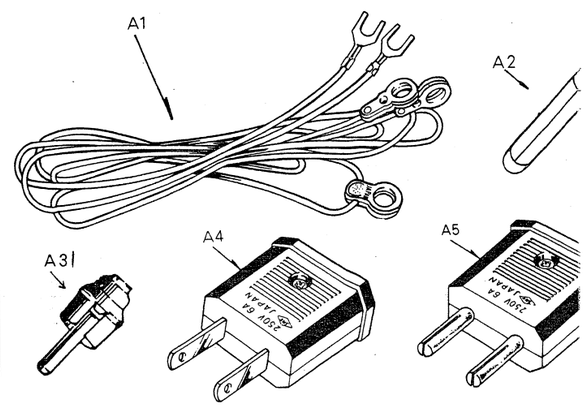


Model SA-5350



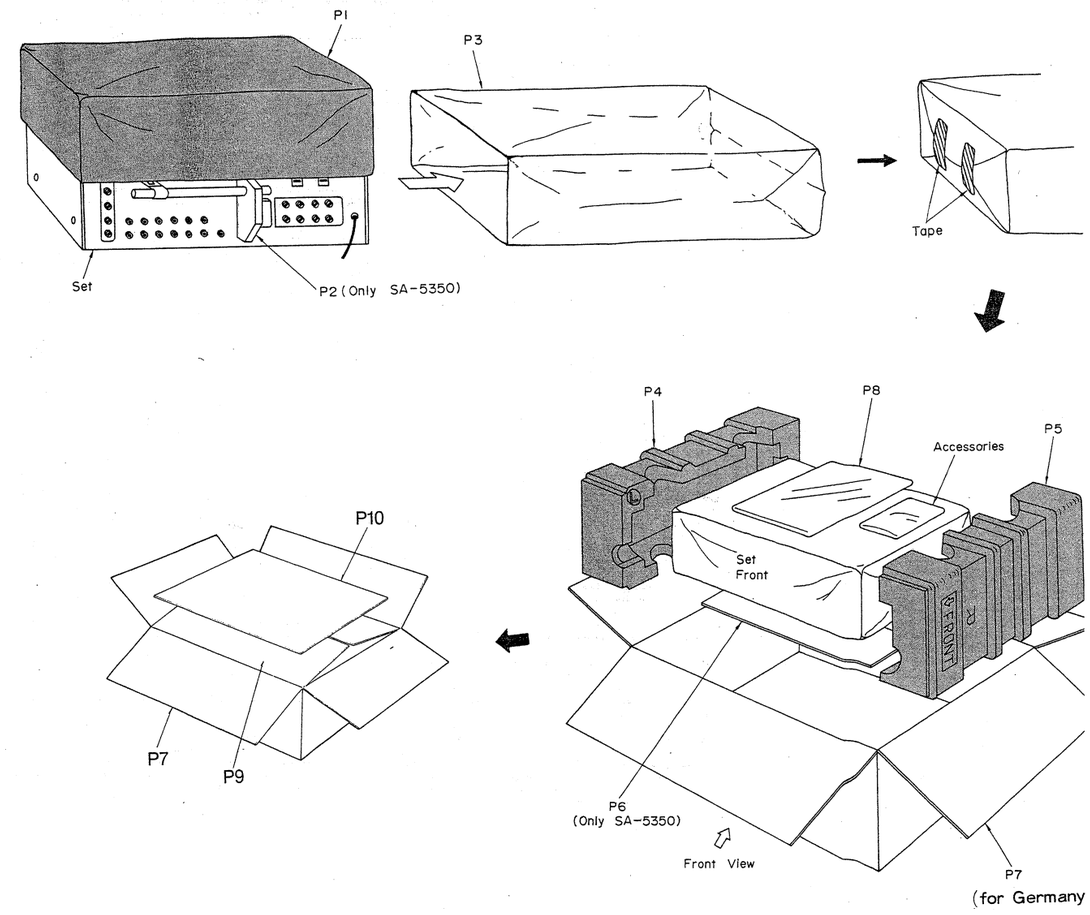
■ **Model SA-5150** **Model SA-5350**

ACCESSORIES



■ **Model SA-5150** **Model SA-5350**

PACKING PARTS



■ Model SA-5350 REPLACEMENT PARTS LIST

NOTES:

1. Part numbers are indicated on most mechanical parts. Please use this part number, for parts orders.

Ref. No.	Part No.	Description	Per Set (Pcs.)	Remarks
INTEGRATED CIRCUITS				
IC101	AN217BB	FM IF, AM RF & AM IF Amplifier	1	
IC102	SVISN76115N	PLL Type FM MPX	1	
TRANSISTORS				
TR1	3SK39-Q	FM RF Amplifier	1	
TR2	2SC922-M	FM Mixer	1	
TR3	2SC839-H	FM Oscillator	1	
TR101,102,103,104,105	2SC829-C	FM IF Amplifier	5	
TR106, 107	2SC945-P2	FM Muting Switching	2	
TR201, 202	2SC1627-T	Equalizer Amplifier	2	
TR203, 204	2SA721-T	Equalizer Amplifier	2	
TR(601,602)×2	2SA666A-AD3	Differential Amplifier	4	
TR (603) ×2	2SC1573-Q	Pre Driver Amplifier	2	
TR (604) ×2	2SC828-R	Thermo Compensation	2	
TR (605) ×2	2SC1567-R	Driver Amplifier } Use in Pairs	2	
TR (606) ×2,	2SA794-R	Driver Amplifier }	2	
TR (607) ×2	2SC1667Ⓢ-Q	Power Amplifier } Use in Pairs	2	
TR (608) ×2	2SA837Ⓢ-Q	Power Amplifier }	2	
TR701	2SA699-R	Ripple Filter	1	
TR702	2SA684-Q	Speaker Protection Relay Switching	1	
TR703, 704	2SC1318-R	Speaker Protection Relay Switching	2	
DIODES				
D1, 2, 101	OA99	AM & FM AGC Detector	3	
D102, 103	2-OA99	FM Discriminator	1 pair	
D104,105,106,107,108	MA150	FM Muting & Meter Detector	5	
D701	SVDAS2HB10	Rectifier	1	
D702, 703	RVD10D1	Rectifier	2	
D704	SVDA10D1M	Rectifier	1	
D705	SVDAEQB0120	20V Zener	1	○
D706	SVDARD10E	10V Zener	1	
THERMISTORS				
TH (601) ×2	RRT251	Driver Circuit	2	
COILS and TRANSFORMERS				
L1	SLAA4W1-3	FM Balun Coil	1	
L2	SLAA4N9	FM Antenna Coil	1	
L3	RLQY25S5	Choke Coil	1	
L4	SLDA4N18	FM DET Coil	1	
L5	RLQY15G5	Choke Coil	1	
L6	SLOA4N9	FM OSC Coil	1	
L7,101,103	SLQX101-2D	Choke Coil	3	
L8	SLFA2E22	AM Antenna Coil	1	○
L9	SLOA2C6	AM OSC Coil	1	
L102	SLIA4B1	FM AGC Coil	1	
L104, 105	SLM1Z7-K	Low Pass Filter	2	○
L701	SLQX101-2D	Choke Coil	1	
T1	RLI7W105S-T	FM 1st IF Transformer	1	
T2	RLI2C450P-T	AM 2nd IF Transformer	1	
T102	SLIA4C541	FM Discriminator, Primary	1	
T101	SLIA4C56	FM Discriminator, Secondary	1	
T103, 104	SLIA4C241-T	FM Muting & Meter IFT	2	
T1001	SLT5Q7	Power Transformer	1	○
CERAMIC FILTERS				
CF101, 102, 103	SVF107MA8A	FM IF Circuit, Red, 10.7MHz	each 3	
	SVF107MA8B	FM IF Circuit, Blue, 10.67MHz		
	SVF107MA8C	FM IF Circuit, Orange, 10.73MHz		
	SVF107MA8D	FM IF Circuit, Black, 10.64MHz		
	SVF107MA8E	FM IF Circuit, White, 10.76MHz		
RESISTORS				
R131	ERD14TJ660	68Ω, ¼W, ±5%, Carbon	1	
R234	ERD14TJ151	150Ω, ¼W, ±5%, Carbon	1	
R215, 216, 218	ERD14TJ331	330Ω, ¼W, ±5%, Carbon	3	
R (608) ×2	ERD14TJ391	390Ω, ¼W, ±5%, Carbon	2	
R (612) ×2, 720	ERD14TJ471	470Ω, ¼W, ±5%, Carbon	3	
R (607) ×2	ERD14TJ561	560Ω, ¼W, ±5%, Carbon	2	
R (614) ×2	ERD14TJ821	820Ω, ¼W, ±5%, Carbon	2	

Ref. No.	Part No.	Description	Per Set (Pcs.)	Remarks
R219, 220, (605) ×2	ERD14TJ102	1 kΩ, ¼W, ±5%, Carbon	4	
R (606) ×2	ERD14TJ152	1.5kΩ, ¼W, ±5%, Carbon	2	
R (613) ×2	ERD14TJ182	1.8kΩ, ¼W, ±5%, Carbon	2	
R203, (611) ×2	ERD14TJ222	2.2kΩ, ¼W, ±5%, Carbon	3	
R (602) ×2	ERD14TJ332	3.3kΩ, ¼W, ±5%, Carbon	2	
R113	ERD14TJ392	3.9kΩ, ¼W, ±5%, Carbon	1	
R221, 222	ERD14TJ472	4.7kΩ, ¼W, ±5%, Carbon	2	
R513, 514, 515	ERD14TJ682	6.8kΩ, ¼W, ±5%, Carbon	3	
R503, 504	ERD14TJ103	10kΩ, ¼W, ±5%, Carbon	2	
R(604) ×2	ERD14TJ123	12kΩ, ¼W, ±5%, Carbon	2	
R525, 526,	ERD14TJ183	18kΩ, ¼W, ±5%, Carbon	2	
R228	ERD14TJ223	22kΩ, ¼W, ±5%, Carbon	1	
R214	ERD14TJ273	27kΩ, ¼W, ±5%, Carbon	1	
R (609) ×2	ERD14TJ333	33kΩ, ¼W, ±5%, Carbon	2	
R223, 224	ERD14TJ473	47kΩ, ¼W, ±5%, Carbon	2	
R (603) ×2	ERD14TJ563	56kΩ, ¼W, ±5%, Carbon	2	
R201, 225	ERD14TJ104	100kΩ, ¼W, ±5%, Carbon	2	
R205, 206	ERD14TJ184	180kΩ, ¼W, ±5%, Carbon	2	
R (601) ×2	ERD14TJ474	470kΩ, ¼W, ±5%, Carbon	2	
R114	ERD14VJ101	100Ω, ¼W, ±5%, Carbon	1	
R140, 233	ERD14VJ151	150Ω, ¼W, ±5%, Carbon	2	
R217	ERD14VJ331	330Ω, ¼W, ±5%, Carbon	1	
R703, 704	ERD14VJ471	470Ω, ¼W, ±5%, Carbon	2	
R505, 506	ERD14VJ821	820Ω, ¼W, ±5%, Carbon	2	
R115, 116	ERD14VJ102	1kΩ, ¼W, ±5%, Carbon	2	
R509, 510	ERD14VJ152	1.5kΩ, ¼W, ±5%, Carbon	2	
R204, 501, 502	ERD14VJ222	2.2kΩ, ¼W, ±5%, Carbon	3	
R132,133,507,508	ERD14VJ272	2.7kΩ, ¼W, ±5%, Carbon	4	
R134, 135	ERD14VJ332	3.3kΩ, ¼W, ±5%, Carbon	2	
R712	ERD14VJ562	5.6kΩ, ¼W, ±5%, Carbon	1	
R516, 710	ERD14VJ682	6.8kΩ, ¼W, ±5%, Carbon	2	
R707	ERD14VJ103	10kΩ, ¼W, ±5%, Carbon	1	
R716, 717	ERD14VJ183	18kΩ, ¼W, ±5%, Carbon	2	
R207,208,227,708,713	ERD14VJ223	22kΩ, ¼W, ±5%, Carbon	5	
R213, 229, 230	ERD14VJ273	27kΩ, ¼W, ±5%, Carbon	3	
R511, 512	ERD14VJ393	39kΩ, ¼W, ±5%, Carbon	2	
R711	ERD14VJ473	47kΩ, ¼W, ±5%, Carbon	1	
7211, 212	ERD14VJ563	56kΩ, ¼W, ±5%, Carbon	2	
R202,209,210,226	ERD14VJ104	100kΩ, ¼W, ±5%, Carbon	4	
R125, 231, 232	ERD14VJ564	560kΩ, ¼W, ±5%, Carbon	3	
R (617,620) ×2	ERD14FJ3R3	3.3Ω, ¼W, ±5%, Carbon	4	
R702	ERD14FJ100	10Ω, ¼W, ±5%, Carbon	1	
R (615,616) ×2	ERD14FJ470	47Ω, ¼W, ±5%, Carbon	4	
R (618,619) ×2	ERD14FJ151	150Ω, ¼W, ±5%, Carbon	4	
R714, 715	ERD12TJ100	10Ω, ½W, ±5%, Carbon	2	
R709	ERD12TJ330	33Ω, ½W, ±5%, Carbon	1	
R1005, 1006	ERD12TJ470	47Ω, ½W, ±5%, Carbon	2	
R706	ERD12TJ331	330Ω, ½W, ±5%, Carbon	1	
R (610) ×2	ERD12TJ122	1.2kΩ, ½W, ±5%, Carbon	2	
R701, 705	ERD18FJ4R7	4.7Ω, ⅛W, ±5%, Carbon	2	
R1001	ERC12ZGK335	3.3MΩ, ½W, ±10%, Solid	1	
R (621,622) ×2	ERX2ANJR33	0.33Ω, 2W, ±5%, Metallic	4	
R718, 719	ERG2ANJ331	330Ω, 2W, ±5%, Metallic	2	
R1010, 1011	ERD14TJ474	470kΩ, ¼W, ±5%, Carbon	2	
R1012, 1013	ERD14TJ104	100kΩ, ¼W, ±5%, Carbon	2	
VARIABLE RESISTORS				
VR101	EVLS3AA00B54	50kΩ (B), Muting Level Adjustment	1	
VR102	EVLS3AA00B24	20kΩ (B), Signal Meter Adjustment	1	
VR103, 104	EVLS3AA00B14	10kΩ (B), PLL VCO & Separation Adj	2	
VR501	EVE2DA088G25	200kΩ (G), Balance Control	1	○
VR502	EWF49A037BF5	250kΩ (B), Volume Control	1	○
VR503, 504	EWF3NA037C15	100kΩ (C), Bass & Treble Control	2	○
VR (601) ×2	EVLS0AA00B52	500Ω (B), ICQ Adjustment	2	
CAPACITORS				
C9	ECCD1H010CC	1pF, 50WV, ±0.25pF, Ceramic	1	
C29	ECCD1H020CC	2pF, 50WV, ±0.25pF, Ceramic	1	
C119	ECCD1H070DC	7pF, 50WV, ±0.5pF, Ceramic	1	
C7, 26	ECCD1H100KC	10pF, 50WV, ±10%, Ceramic	2	
C1	ECCD1H120KC	12pF, 50WV, ±10%, Ceramic	1	
C13, 15	ECCD1H150KC	15pF, 50WV, ±10%, Ceramic	2	
C6	ECCD1H180KR	18pF, 50WV, ±10%, Ceramic	1	
C12	ECCD1H180KS	18pF, 50WV, ±10%, Ceramic	1	
C14, 117	ECCD1H390KC	39pF, 50WV, ±10%, Ceramic	2	
C (604) ×2	ECCD1H390K	39pF, 50WV, ±10%, Ceramic	2	
C113	ECCD1H470KR	47pF, 50WV, ±10%, Ceramic	1	
C (606) ×2	ECCD1H330K	33pF, 50WV, ±10%, Ceramic	2	
C110,114,115,205,206	ECCD1H121K	120pF, 50WV, ±10%, Ceramic	5	
C8, 217, 218	ECCD1H181K	180pF, 50WV, ±10%, Ceramic	3	
C104, 129	ECCD1H271K	270pF, 50WV, ±10%, Ceramic	2	
C (609, 611) ×2	ECCD2H121K	120pF, 500WV, ±10%, Ceramic	4	

Ref. No.	Part No.	Description	Per Set (Pcs.)	Remarks
C207, 208	ECKD1H821KB	820pF, 50WV, ±10%, Ceramic	2	
C2,3,4,5,11,16 120, 123	ECKD1H102PF	0.001μF, 50WV, $^{+100}_{-0}$% Ceramic	8	
C (610) ×2	ECKD1H222PF	0.0022μF, 50WV, 〃 Ceramic	2	
C10,103,106,121,124, 143,703,708,709,713	ECKD1H103PF	0.01μF, 50WV, 〃 Ceramic	10	
C21, 22, 122	ECKD1H223PF	0.022μF, 50WV, 〃 Ceramic	3	
C27, 125	ECKD2H103PF	0.01μF, 500WV, 〃 Ceramic	2	
C1001	ECQU2A103MD	0.01μF, 250VAC, ±20% Polyester	1	
C25	ECQM05222KZ	0.0022μF, 50WV, ±10%, Polyester	1	
C219, 220	ECQM05272JZ	0.0027μF, 50WV, ±5%, Polyester	2	
C501, 502, 511, 512	ECQM05392KZ	0.0039μF, 50WV, ±10%, Polyester	4	
C221, 222	ECQM05103JZ	0.01μF, 50WV, ±5%, Polyester	2	
C19, 101, 102, 107, 108 111, 112, 118, 144	ECQM05223KZ	0.022μF, 50WV, ±10%, Polyester	9	
C24	ECQM05273KZ	0.027μF, 50WV, ±10%, Polyester	1	
C503,504,513,514	ECQM05333KZ	0.033μF, 50WV, ±10%, Polyester	4	
C138, 139	ECQM05223JZ	0.022μF, 50WV, ±5%, Polyester	2	
C136,715,716	ECQM05473KZ	0.047μF, 50WV, ±10%, Polyester	3	
C505, 506	ECQM05823KZ	0.082μF, 50WV, ±10%, Polyester	2	
C507, 508	ECQM05274KZ	0.27μF, 50WV, ±10%, Polyester	2	
C1002	ECQU2A103MD	0.01μF, 250VAC, ±20%, Polyester	1	
C131	ECQS1471JZ-K	470pF, 125WV, ±5%, Styrol	1	
C209, 210	ECEA6V33L	33μF, 6.3WV, Electrolytic	2	
C211, 212	ECEA6V47	47μF, 6.3WV, Electrolytic	2	
C (602) ×2	ECEA6V100L	100μF, 6.3WV, Electrolytic	2	
C203, 204, (603) ×2	ECEA6V220L	220μF, 6.3WV, Electrolytic	4	
C109	ECEA10V33L	33μF, 10WV, Electrolytic	1	
C130	ECEA10V47L	47μF, 10WV, Electrolytic	1	
C17, 28, 142	ECEA10V100L	100μF, 10WV, Electrolytic	3	
C707	ECEA10V470L	470μF, 10WV, Electrolytic	1	
C23, 128, 250	ECEA16V10L	10μF, 16WV, Electrolytic	3	
C706	ECEA16V47L	47μF, 16WV, Electrolytic	1	
C105, 116, 127 137, 140, 141	ECEA25V3R3L	3.3μF, 25WV, Electrolytic	6	
C213, 214	ECEA25V4R7L	4.7μF, 25WV, Electrolytic	2	
C711	ECEA25V100L	100μF, 25WV, Electrolytic	1	
C (605) ×2, 705, 714	ECEA25V220L	220μF, 25WV, Electrolytic	4	
C223, 224, 704	ECEA25V470L	470μF, 25WV, Electrolytic	3	
C (607) ×2	ECEA35V47L	47μF, 35WV, Electrolytic	2	
C710	ECEA35V100	100μF, 35WV, Electrolytic	1	
C (608) ×2	ECEA35V220	220μF, 35WV, Electrolytic	2	
C18, 20, 126, 134, 215, 216 (601) ×2	ECEA50V1G	1μF, 50WV, Electrolytic	8	
C712	ECEA25V33L	33μF, 25WV, Electrolytic	1	
C133	ECAG25ER1X	0.1μF, 25WV, Electrolytic	1	
C135	ECAG25ER33X	0.33μF, 25WV, Electrolytic	1	
C201, 202	ECSZ25EF1	1μF, 25WV, Electrolytic	2	
C701, 702	ECET35R4700Y	4700μF, 35WV, Electrolytic	2	

VARIABLE CAPACITORS

CV1~5 (CT1~4)	ECV5MX25X20G	Tuning Gang, AM/FM (with Trimmer)	1	
CT5	ECV1ZW06P35	FM OSC Trimmer, 6pF	1	

COMPONENT COMBINATIONS

Z1	EXAF203Z471	AM Detector	1	
Z101	EXAF5DL04C	FM Detector	1	
Z701, 702	RXAF103P22HD	Hum Cancel, 0.01μF(×2), 500WV	2	

SWITCHES

S501	SSRA81	Selector Switch	1	○
S502,503,504,505	SSHA57-1S	Tape 1, 2, Mode & Filter Switch	1	○
S506, 507,	SSHA56S	Loudness & Muting Switch	1	○
S1001	ESRC124F30CE	Speakers Selector Switch	1	○
S1002	ESB7040T	Power Source Switch (with Button)	1	○
S1003	SSRA71S	Voltage Selector Switch	1	

RELAY and METER

RLY701	SSYA1	Speakers Protection Relay	1	
	SSMA25-2	Signal Meter	1	

FUSES and LIGHTS

F1	XBAS2B3002	3A Fuse, Power Source	1	
F2	XBAS1B3003	3A Fuse, Power Source	2	
F3, 4	XBAS1A3301	3.3A Fuse, Circuit Protection	2	
F6	XBAS2B1501	1.5A Fuse, Power Source	1	
PL1~6	XAM35K	Dial Lamp, 6.3V 0.25A	6	
PL7	XAMR38S150A	Stereo Eye, 6.3V 40mA	1	

CABINET PARTS

CA1	XTS3+8BK	Black Screw, Panel M'tg.	2	
CA2	SGWA1410	Front Panel	1	○
CA3	SBNA116E	Knob, Speaker Switch, Bass, Treble, Volume, Balance & Selector Switch	6	
CA4	XTV3+8CK	Black Screw, Panel M'tg.	2	
CA5	SBCA56	Button, Push Siwtches	6	○
CA6	SBNA131E	Knob, Tuning	1	○
CA7	SGUA34	Glass Plate	1	○
CA8(BRN)	SKAA830	Cabinet (Brown Wood)	1	○
CA8(BLK)	SKAA830-1	Cabinet (Black Wood)	1	○
CA9(BLK)	XSB4+16KS	Screw, Black Cabinet M'tg.	4	
CA9(BRN)	XSB4+16BVCS	Screw, Brown Cabinet M'tg.	4	
CA10	SGPA680-1A	Rear Panel	1	○
CA11	SMA197	Mounting, AM Antenna Coil	1	○
CA12	SMAA6-2	Band, AM Antenna Coil	1	
CA13	SJFA5201-1	Fuse Holder, Circuit Protection	1	
CA14	SJSA66-1	Socket, AC	2	
CA15	RHR111	Bushing, AC Cord	1	
CA16	SJFA4401-2	Terminal, Antenna	1	
CA17	SJFA3020	Terminal, Input	1	○
CA18	XSN26+12	Screw, Fuse Cap M'tg.	1	
CA19	SJFA5202-1	Fuse Cap	1	
CA20	SJFA4803-1	Terminal, Speakers	1	
CA21	SJAA3-1	AC Cord	1	
CA22	SKUA440	Bottom Board	1	○
CA23	SKL145	Leg	4	○
CA24	XTV3+8CFYR	Red Screw, Bottom Board M'tg.	5	
CA25	RHR106	Bushing, AM Antenna Lead	1	
	XSN3+6FYRS	Red Screw, Bottom Board M'tg.	1	
CA26	RJS31-1	DIN Socket, Tape Monitor	1	

CHASSIS PARTS

CH1	SDHA58-1	Mounting, Meter & Dial Scale	1	○
CH2	SHRA916-1	Lock Pin, Dial Scale	2	
CH3	SKDA530	Dial Scale	1	○
CH4	SUSA69	Spring, Meter	1	○
CH5	SUMA8-1	Mounting, Dial Scale	1	
CH6	SJJA16	Jack, Headphones	1	○
CH7	RDY34	Shaft, Pulley (RDR20)	4	
CH8	RDR20	Pulley, Dial Cord	4	
CH9	RNW150-2	Lock Washer, Pulley	5	
CH10	SDUA11	Filter, Dial Light	1	○
CH11	XTV3+8CK	Black Screw, Lamp House M'tg.	4	
CH12	XNG3CS	Nut, Lamp Holder M'tg.	2	
CH13	SMPA59	Lamp House	1	○
CH14	SDPA8	Pointer, Dial	1	○
CH15	SJSA206	Holder, Dial Lamp	1	○
CH16	SDZ051-1	Cord, Dial [200cm (78¾")]	1 roll	
CH17	RDR23	Pulley, Dial Cord	1	
CH18	RDY32	Shaft, Pulley (RDR23)	1	
CH19	SHGA204	Rubber Cushion, Stereo Eye	1	
CH20	SDTA10-1S	Tuning Shaft, Complete	1	○
CH21	SDDA471S	Drum, Tuning	1	
CH22	SDSA4121	Spring, Drum	1	
	XXAR3H6S	Screw, Drum M'tg.	2	
	SJS5405	4Pin Socket, Lead Connector	2	
	SJS5603	6Pin Socket, Lead Connector	1	
CH23	SHRA919	Lock Pin, Dial Light Filter	3	○
	SJS41	Pin Clamp, (SJS5405, SJS5603)	14	

ACCESSORIES

A1	SSAA3	FM Antenna Cord	1	
A2	XBAS1A3301	Circuit Protection Fuse (3, 3A)	2	
A3	RJP5	Pin Plug	4	
A4	RJP16A5	AC Plug	1	
A5	RJP17AS	AC Plug	1	

PACKING PARTS

P1	SPPA16-1	Soft Cover	1	
P2	SPS5	Pad, AM Bar Antenna	1	○
P3	SPP163	Polyethylene Bag	1	
P4	SPS1	Pad, Left Side	1	○
P5	SPS3	Pad, Right Side	1	○
P6	SPS13	Pad, Bottom Board	1	○
P7	SPG499	Carton Box, Outer	1	○
P8	SQF969	Printed Matter, Complete	1	○
P9	SPN5081	Carton Box, Inner	1	○
P10	SPNA187	Pad, Upper	1	

PACKING PARTS (for Germany)

P1	SPPA16-1	Soft Cover	1	
P2	SPS5	Pad, AM Bar Antenna	1	
P3	SPP163	Polyethylene Bag	1	
P4	SPS1	Pad, Left Side	1	
P5	SPS3	Pad, Right Side	1	
P6	SPS13	Pad, Bottom Board	1	
P7	SPG509	Carton Box	1	○
P8(Germany)	SQF969	Printed Matter, Complete		
P9	----------	Deletion	-----	-----
P10	----------	Deletion	-----	-----

Model SA-5150 REPLACEMENT PARTS LIST

NOTES:

1. Part numbers are indicated on most mechanical parts. Please use this part number, for parts orders.

Ref. No.	Part No.	Description	Per Set (Pcs.)	Remarks
INTEGRATED CIRCUITS				
IC101	AN217BB	FM IF, AM RF & AM IF Amplifier	1	
IC102	SVISN76115N	PLL Type FM MPX	1	
IC601, 602	SVISTK027K	Power Amplifier	2	
TRANSISTORS				
TR1	3SK39-Q	FM RF Amplifier	1	
TR2	2SC922-M	FM Mixer	1	
TR3	2SC839-H	FM Oscillator	1	
TR101,102,103,104	2SC829-C	FM IF Amplifier	4	
TR105	2SA564-R	Muting Switching	1	
TR201, 202	2SA721-T	Equalizer Amplifier	2	
TR203, 204	2SC1327-T	Equalizer Amplifier	2	
TR701	2SA699-R	Ripple Filter	1	
DIODES				
D1, 2, 101, 104, 105, 106, 107	OA99	AM, Meter, FM Auto Stereo & FM AGC Detector	7	
D102, 103	2-OA99	FM Discriminator	1 pair	
D108	MA150	Muting Switching	1	
D701, 702	RVD10DC1	Rectifier	2	
D703, 704	RVD10DC1R	Rectifier	2	
D705	SVDA10D1M	Rectifier	1	
D706	SVDARD10E	10V Zener	1	
COILS and TRANSFORMERS				
L1	SLAA4W1-3	FM Balun Coil	1	
L2	SLAA4N9	FM Antenna Coil	1	
L3	RLQY25S5	Choke Coil	1	
L4	SLDA4N18	FM Detector Coil	1	
L5	RLQY15G5	Choke Coil	1	
L6	SLOA4N9	FM Oscillator Coil	1	
L7	SLQX101-2D	Choke Coil	1	
L8	SLFA2E23	AM Antenna Coil	1	○
L9	SLOA2C6	AM Oscillator Coil	1	
L101	SLIA4B1	FM AGC Coil	1	
L701	SLQX101-2D	Choke Coil	1	
T1	RLI7W105S-T	AM 1st IF Transformer	1	
T1(England)	RLI7W108P-T	AM IF Transformer(for England)	1	
T2	RLI2C450P-T	AM 2nd IF Transformer	1	
T101	SLIA4C541	FM Discriminator, Primary	1	
T102	SLIA4C56	FM Discriminator, Secondary	1	
T103	SLIA4C241-T	FM Auto Stereo IF Transformer	1	
T1001	SLT5N133 -W	Power Transformer	1	○
CERAMIC FILTERS				
CF101,102,103	SVF107MA8A	FM IF Circuit, Red, 10.7 MHz	each 3	
	SVF107MA8B	FM IF Circuit, Blue, 10.67MHz		
	SVF107MA8C	FM IF Circuit, Orange, 10.73MHz		
	SVF107MA8D	FM IF Circuit, Black, 10.64MHz		
	SVF107MA8E	FM IF Circuit, White, 10.76MHz		
RESISTORS				
R702	ERD14TJ100	10Ω, ¼W, ±5%, Carbon	1	
R607, 608	ERD14TJ220	22Ω, ¼W, ±5%, Carbon	2	
R131	ERD14TJ680	68Ω, ¼W, ±5%, Carbon	1	
R609, 610	ERD14TJ820	82Ω, ¼W, ±5%, Carbon	2	
R217,218,615,616	ERD14TJ331	330Ω, ¼W, ±5%, Carbon	4	
R613, 614	ERD14TJ391	390Ω, ¼W, ±5%, Carbon	2	
R216, 703, 704	ERD14TJ471	470Ω, ¼W, ±5%, Carbon	3	
R219,220,603,604	ERD14TJ102	1kΩ, ¼W, ±5%, Carbon	4	
R 203,204,129,130	ERD14TJ222	2.2kΩ, ¼W, ±5%, Carbon	4	
R125, 126	ERD14TJ272	2.7kΩ, ¼W, ±5%, Carbon	2	
R221, 222	ERD14TJ472	4.7kΩ, ¼W, ±5%, Carbon	2	
R127, 128	ERD14TJ681	680Ω, ¼W, ±5%, Carbon	2	
R611, 612	ERD14TJ123	12kΩ, ¼W, ±5%, Carbon	2	
R228	ERD14TJ223	22kΩ, ¼W, ±5%, Carbon	1	
R213, 214	ERD14TJ273	27kΩ, ¼W, ±5%, Carbon	2	
R211, 212	ERD14TJ563	56kΩ, ¼W, ±5%, Carbon	2	
R201,202,209,210	ERD14TJ104	100kΩ, ¼W, ±5%, Carbon	4	
R205, 206	ERD14TJ184	180kΩ, ¼W, ±5%, Carbon	2	
R601, 602	ERD14TJ474	470kΩ, ¼W, ±5%, Carbon	2	
R619, 620	ERD14FJ390	39Ω, ¼W, ±5%, Carbon	2	
R605, 606	ERD14FJ560	56Ω, ¼W, ±5%, Carbon	2	
R705	ERD14FJ101	100Ω, ¼W, ±5%, Carbon	1	
R617, 618	ERD14FJ121	120Ω, ¼W, ±5%, Carbon	2	
R706	ERD14FJ271	270Ω, ¼W, ±5%, Carbon	1	
R621, 622	ERD14FJ681	680Ω, ¼W, ±5%, Carbon	2	
R113	ERD14VJ101	100Ω, ¼W, ±5%, Carbon	1	
R137	ERD14VJ151	150Ω, ¼W, ±5%, Carbon	1	
R117, 215	ERD14VJ471	470Ω, ¼W, ±5%, Carbon	2	
R120, 121, 138	ERD14VJ102	1kΩ, ¼W, ±5%, Carbon	3	
R207, 208, 227	ERD14VJ223	22kΩ, ¼W, ±5%, Carbon	3	
R229, 230	ERD14VJ333	33kΩ, ¼W, ±5%, Carbon	2	
R223, 224	ERD14VJ473	47kΩ, ¼W, ±5%, Carbon	2	
R225, 226	ERD14VJ104	100kΩ, ¼W, ±5%, Carbon	2	
R231, 232	ERD14VJ564	560kΩ, ¼W, ±5%, Carbon	2	
R701	ERD18FJ4R7	4.7Ω, ⅛W, ±5%, Carbon	1	
R623, 624	ERD12TJ100	10Ω, ½W, ±5%, Carbon	2	
R625, 626	ERG1ANJ331	330Ω, 1 W, ±5%, Metallic	2	
R1001	ERC12ZGK335	3.3MΩ, ½W, ±10%, Solid	1	
R1002, 1003	ERD14TJ104	100kΩ, ¼W, ±5%, Carbon	2	
R1004, 1005	ERD14TJ474	470kΩ, ¼W, ±5%, Carbon	2	
VARIABLE RESISTORS				
VR101	EVLS3AA00B54	50kΩ (B), FM Auto Stereo Level Adj.	1	
VR102	EVLS3AA00B24	20kΩ (B), Meter Level Adjustment	1	
VR103, 104	EVLS3AA00B14	10kΩ (B), VCO & Separation Adj.	2	
VR501	EVE2DA088G25	200kΩ (B), Balance Control	1	
VR601	EWF49A037BF5	250kΩ (B), Volume Control	1	
VR602, 603	EWF3NA039C14	10kΩ (B), Bass & Treble Control	2	
CAPACITORS				
C8	ECCD1H010CC	1PF, 50WV, ±0.25pF, Ceramic	1	
C6, 26	ECCD1H100KC	10pF, 50WV, ±10%, Ceramic	2	
C1	ECCD1H120KC	12pF, 50WV, ±10%, Ceramic	1	
C14, 27	ECCD1H150KC	15pF, 50WV, ±10%, Ceramic	2	
C117	ECCD1H180KC	18pF, 50WV, ±10%, Ceramic	1	
C12	ECCD1H180KS	18pF, 50WV, ±10%, Ceramic	1	
C5	ECCD1H180KR	18pF, 50WV, ±10%, Ceramic	1	
C13	ECCD1H390KC	39pF, 50WV, ±10%, Ceramic	1	
C132	ECCD1H470KR	47pF, 50WV, ±10%, Ceramic	1	
C108,113,114,116, 205,206,217,218	ECCD1H121K	120pF, 50WV, ±10%, Ceramic	8	
C7	ECCD1H181K	180pF, 50WV, ±10%, Ceramic	1	
C109, 133	ECCD1H271K	270pF, 50WV, ±10%, Ceramic	2	
C207, 208	ECKD1H821KB	820pF, 50WV, ±10%, Ceramic	2	
C2, 3, 4, 15, 707, 710	ECKD1H102PF	0.001μF, 50WV, +100 %, Ceramic	6	
C9,10,11,16,21, 101,104,118,119, 122,135,140,707,710	ECKD1H103PF	0.01μF, 50WV, 〃 Ceramic	14	
C708	ECKD1H223PF	0.022μF, 50WV, 〃 Ceramic	1	
C25	ECQM05222KZ	0.0022μF, 50WV, ±10%, Polyester	1	
C219, 220	ECQM05222JZ	0.0022μF, 50WV, ±5%, Polyester	2	
C221, 222	ECQM05822JZ	0.0082μF, 50WV, ±5%, Polyester	2	
C18,22,24,103, 105,106,107,110, 111,134,136	ECQM05223KZ	0.022μF, 50WV, ±10%, Polyester	11	
C501, 502	ECQM05333KZ	0.033μF, 50WV, ±10%, Polyester	2	
C123, 625, 626	ECQM05473KZ	0.047μF, 50WV, ±10%, Polyester	3	
C605, 606	ECQM05823KZ	0.082μF, 50WV, ±10%, Polyester	2	
C607, 608	ECQM05394KZ	0.39μF, 50WV, ±10%, Polyester	2	
C603, 604	ECQM05474KZ	0.47μF, 50WV, ±10%, Polyester	2	
C124	ECQS1471JZ-K	470pF, 125WV, ±5%, Styrol	1	
C209, 210	ECEA6V33L	33μF, 6.3WV, Electrolytic	2	
C211, 212	ECEA6V47L	47μF, 6.3WV, Electrolytic	2	
C121	ECEA6V100L	100μF, 6.3WV, Electrolytic	1	
C203, 204	ECEA6V220L	220μF, 6.3WV, Electrolytic	2	
C128	ECEA10V33L	33μF, 10WV, Electrolytic	1	
C17	ECEA10V47L	47μF, 10WV, Electrolytic	1	
C102,137,615,616	ECEA10V100L	100μF, 10WV, Electrolytic	4	
C23, 138	ECEA16V10L	10μF, 16WV, Electrolytic	2	
C613, 614	ECEA16V33L	33μF, 16WV, Electrolytic	2	
C705	ECEA16V47L	47μF, 16WV, Electrolytic	1	
C706	ECEA16V470L	470μF, 16WV, Electrolytic	1	
C115, 130, 131	ECEA25V3R3L	3.3μF, 25WV, Electrolytic	3	
C112, 213, 214	ECEA25V4R7L	4.7μF, 25WV, Electrolytic	3	
C609,610,611,612	ECEA25V4R7LM	4.7μF, 25WV, Electrolytic	4	
C619, 620	ECEA25V100L	100μF, 25WV, Electrolytic	2	
C704	ECEA25V330L	330μF, 25WV, Electrolytic	1	
C223, 703, 709	ECEA25V470L	470μF, 25WV, Electrolytic	3	
C621,622,623,624	ECEA35V10L	10μF, 35W V, Electrolytic	4	
C617, 618	ECEA35V100L	100μF, 35WV, Electrolytic	2	
C19,20,127,215, 216, 601, 602	ECEA50V1G	1μF, 50WV, Electrolytic	7	
C201, 202	ECSZ25EF1	1μF, 25WV, Electrolytic	2	
C126	ECAG25ER1X	0.1μF, 25WV, Electrolytic	1	

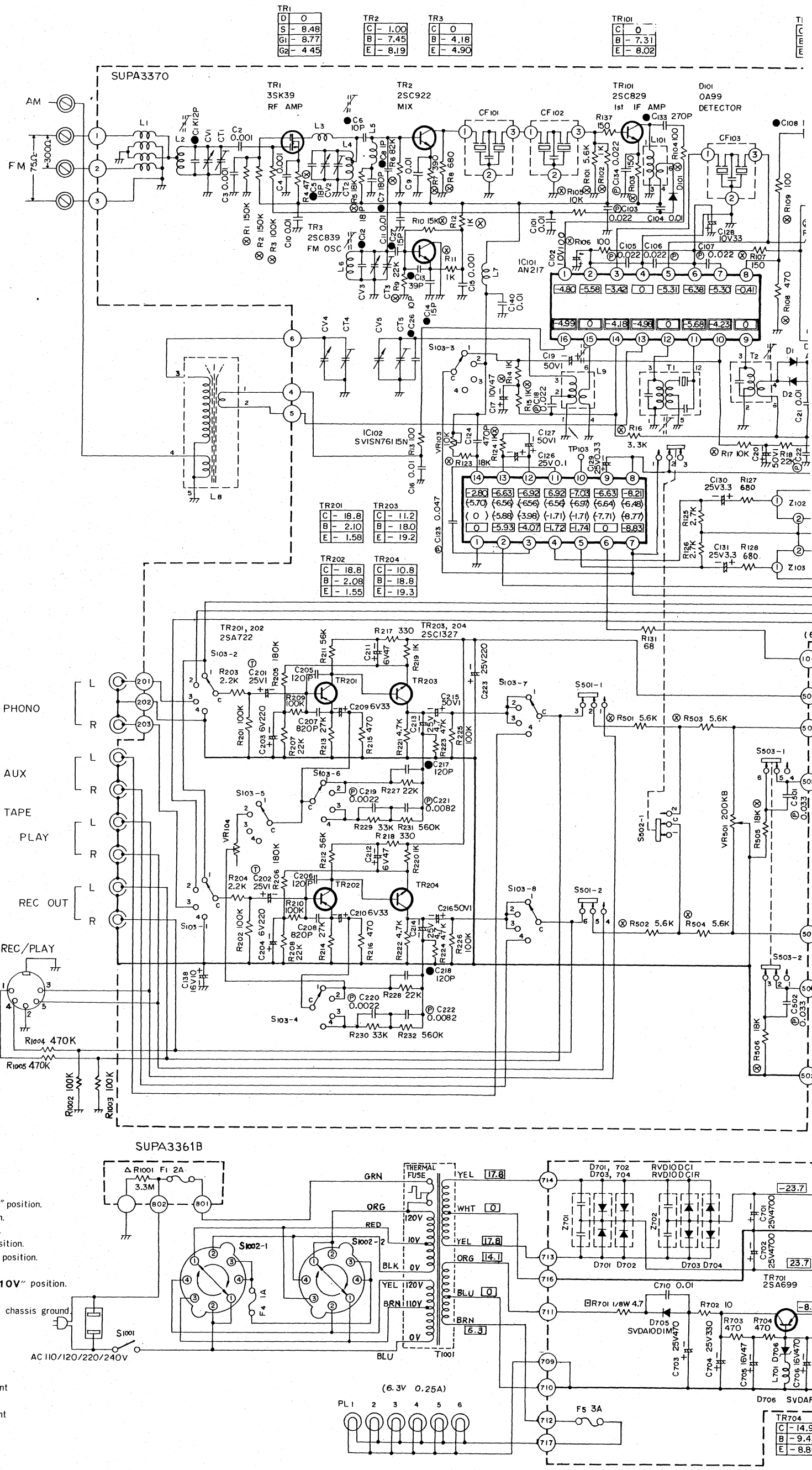
Ref. No.	Part No.	Description	Per Set (Pcs.)	Remarks
C129	ECAG25ER33X	0.33μF, 25WV, Electrolytic	1	
C701, 702	ECET25R4700S	4700μF, 25WV, Electrolytic	2	
VARIABLE CAPACITORS				
CV1~5 (CT1,2,4,5)	ECV5MX25X20G	Tuning Gang, AM/FM (With Trimmer)	1	○
CT3	ECV1ZW06P35	FM OSC Trimmer, 6pF	1	
COMPONENT COMBINATIONS				
Z1	EXAF203Z471	AM Detector	1	
Z101	EXA5DL04C	FM Detector	1	
Z102, 103	EXAM505F	Low Pass Filter	2	
Z701, 702	RXAF103P22HD	Hum Cancel, 0.01μF(X2),500WV	2	
SWITCHES				
S103	SSRA81	Selector Switch	1	
S501, 502, 503	SSHA59S	Mode, Tape Monitor, Loudness Switch	1	○
S601, 602	SSHA58S	Main, Remote Speakers Switch	1	○
S1001	ESB7036	Power Switch (with Button)	1	
S1001(England)	ESB7051	Power Switch(for England)	1	○
S1002	SSRA71S	Voltage Selector Switch	1	
METER				
	SSMA25-2	Signal Meter	1	
FUSES and LIGHTS				
F1	XBAS2B2002	2A Fuse, Power Source	1	
F2, 3	XBAS1A2501	2.5A Fuse, Circuit Protection	2	
F4	XBA2K10NS5	1A Fuse, Power Source	1	
F5	XBAS1B3001	3A Fuse, Power Source	1	
PL1~6	XAM35K	Dial Lamp, 6.3V 0.25A	6	
PL7	XAMR38S200	Stereo Eye, 6.3V, 40mA	1	
CABINET PARTS				
CA1	XTS3+8BK	Black Screw, Panel M'tg.	2	
CA2	SGWA1420	Front Panel	1	○
CA3	SBCA56	Button, Speakers, Loudness, Tape-Monitor & Mode Switch	5	
CA4	SBNA116E	Knob, Bass, Treble, Volume, Balance & Selector Switch	5	
CA5	XTV3+8CK	Black Screw, Panel M'tg.	2	
CA6	SBNA131E	Knob, Tuning	1	
CA7	SGUA34	Glass Plate	1	
CA8(BRN)	SKAA830	Cabinet(Brown Wood)	1	
CA8(BLK)	SKAA830-1	Cabinet(Black Wood)	1	○
CA9(BRN)	XSB4+16BVCS	Screw, Brown Cabinet M'tg.	4	
CA9(BLK)	XSB4+16KS	Screw, Black Cabinet M'tg.	4	
CA10	SGPA700-1A	Rear Panel	1	○
CA10(England)	SGPA700-2A	Rear Panel, (for England)	1	○
CA11	SJFA5201-1	Holder, Circuit Protection Fuses	1	
CA12	SJSA66-1	Socket, AC	1	
CA13	RHR111	Bushing, AC Cord	1	
CA13(England)	SHR113	Bushing, AC Cord(for England)	1	
CA14	SJFA4401-2	Terminal, Ext. Antenna	1	
CA15	SJFA3806	Terminal, PHONO, AUX & Tape Monitor	1	○
CA16	SJFA5202-1	Cover, Ciruit Protection Fuses	1	
CA17	XSN26+12	Screw, Fuse Cover M'tg.	1	
CA18	SJFA4803-1	Terminal, Speakers	1	
CA19	SJAA3-1	AC Cord	1	
CA19(England)	SJA73	AC Cord(for England)	1	
CA20	XNG4BS	Nut, Leg M'tg.	4	
CA21	XWG4	Washer, Leg M'tg.	4	
CA22	XTW3+10EFY	Screw, Bottom Baard M'tg.	6	
CA23	SKLA7	Leg	4	○
CA24	XSN4+14S	Screw, Leg M'tg.	4	
CA25	SKUA450-1	Bottom Board	1	○
CA26	RJS31-1	Socket, DIN(Tape Monitor)	1	

Ref. No.	Part No.	Description	Per Set (Pcs.)	Remarks
CHASSIS PARTS				
CH1	XTV3+8C	Screw, Meter Bracket M'tg.	3	
CH2	SDHA59-1	Bracket, Meter	1	○
CH3	SKDA530	Scale, Dial	1	
CH4	SHRA916-1	Lock Pin, Dial Scale	2	
CH5	RDY34	Shaft, Pulley	4	
CH6	RDR20	Pulley, Dial Cord	4	
CH7	RNW150-2	Lock Washer, Pulley	5	
CH8	SUMA8-1	Mounting, Dial Scale	1	
CH9	SHRA919	Lock Pin, Dial Light Filter	3	
CH10	SJJA16	Jack, Headphones	1	
CH11	RDR23	Pulley, Dial Cord	1	
CH12	SDUA11	Blue Filter, Dial Light	1	
CH13	XNG3CS	Nut, Lamp Holder M'tg.	2	
CH14	SDPA8	Pointer, Dial	1	
CH15	SJSA206	Holder, Dial Lamp	1	
CH16	SDZ051-1	Cord, Dial (200cm [78¾"])	1 roll	
CH17	SUSA69	Spring, Meter	1	
CH18	SHGA204	Rubber Bracket, Stereo Eye	1	
CH19	SDTA10-1S	Tuning Shaft, Complete (with Flywheel)	1	
CH20	SDDA471S	Drum, Dial	1	
CH21	SDSA4121	Spring, Drum	1	
	XXAR3H6S	Screw, Drum M'tg.	2	
	SJS5405	4 pin Socket, Lead Connector	1	
	SJS5603	6 pin Socket, Lead Connector	1	
	SJS41	Pin Clamp (SJS5405, SJS5603)	10	
ACCESSORIES				
A1	SSAA3	FM Antenna Cord	1	
A2	XBAS1A2501	Circuit Protection Fuse(2.5A)	2	
A3	RJP5	Pin Plug	4	
A4	RJP16AS	AC Plug } Not belong for England	1	
A5	RJP17AS	AC Plug }	1	
PACKING PARTS				
P1	SPPA16-1	Soft Cover	1	
P3	SPP163	Polyethylene Bag	1	
P4	SPS1	Pad, Left Side	1	
P5	SPS3	Pad, Right Side	1	
P7	SPG497	Carton Box, Outer	1	○
P8	SQF957	Printed Matter, Complete	1	○
P9	SPN5079	Carton Box, Inner	1	○
P10	SPNA187	Pad, Upper	1	
PACKING PARTS (for Germany & England)				
P1	SPPA16-1	Soft Cover	1	
P3	SPP163	Polyethylene Bag	1	
P4	SPS1	Pad, Left Side	1	
P5	SPS3	Pad, Right Side	1	
P7	SPG507	Carton Box	1	○
P8(Germany)	SQF957	Printed Matter, Complete	1	
P8(England)	SQF1043	Printed Matter(for England)	1	○
P9	----------	Deletion	------	
P10	----------	Deletion	------	

Printed in Japan

Schematic Diagram ..... Model SA-5150

(This schematic diagram may be modified at any time with



Notes :

1. **S103-1~S103-8**: Selector switch in `**AM**" position.
   AM ↔ FM AUTO ↔ PHONO ↔ AUX
2. **S501-1, S501-2**: Tape monitor switch in `**SOURCE**" position.
3. **S502-1, S502-2**: Mode switch in `**STEREO**" position.
4. **S503-1, S503-2**: Loudness switch in `**OFF**" position.
5. **S601-1, S601-2**: Main speakers switch in `**OFF**" position.
6. **S602-1, S602-2**: Remote speakers switch in `**OFF**" position.
7. **S1001**: Power source switch in `**OFF**" position.
8. **S1002-1, S1002-2**: Voltage selector switch in `**110V**" position.
   110V ↔ 120V ↔ 220V ↔ 240V
9. DC voltage measurements are taken with DC VTVM from chassis ground.
   - ▭ ..... FM position
   - ▭ ..... AM position
   - 〈 〉 ..... FM stereo signal reception

VR101: Stereo Indicator Lighting Level Adjustment
VR102: FM Meter Adjustment
VR103: PLL Voltage Control Oscillator Adjustment
VR104: Separation Adjustment
VR501: Balance Control
VR601-1, VR601-2: Volume Control
VR602-1, VR602-2: Treble Control
VR603-1, VR603-2: Bass Control
× mark resistors are printed carbon resistors.

is schematic diagram may be modified at any time with the development of new technology.)

R3	
	0
	- 4.18
	- 4.90

TR101	
C	0
B	- 7.31
E	- 8.02

TR102	
C	0.312
B	- 6.79
E	- 7.47

TR103	
C	0
B	- 3.46
E	- 4.17

TR104	
C	-0.684
B	- 3.43
E	- 4.17

TR105 (MONO)	(STEREO)
C	- 8.55	0.02
B	- 0.12	0.74
E	0	0

TR101 2SC829 1st IF AMP

D101 0A99 DETECTOR

TR102 2SC829 FM 6th IF AMP

D102, 103 0A99 FM DETECTOR

TR103, 104 2SA829 FM MUTING AMP

D104, 105 0A99 DETECTOR

TR105 2SA564 SWITCH AMP

D108 MA150 SWITCH

D1, 2 0A99 AM DETECTOR

D106, 107 0A99 AM DETECTOR

IC101 AN217

IC102 SVISN76115N

IC601 SVISTK027K

IC602 SVISTK027K

TR701 2SA699

TR704

| | | |

n the development of new technology.)

TR102	
C	0.312
B	- 6.79
E	- 7.47

TR103	
C	0
B	- 3.46
E	- 4.17

TR104	
C	-0.684
B	- 3.43
E	- 4.17

TR105 (MONO)	(STEREO)
C	- 8.55	0.02
B	- 0.12	0.74
E	0	0

TR102 2SC829 FM 6th IF AMP

D102, 103 0A99 FM DETECTOR

TR103, 104 2SA829 FM MUTING AMP

D104, 105 0A99 DETECTOR

TR105 2SA564 SWITCH AMP

D108 MA150 SWITCH

D1, 2 0A99 AM DETECTOR

D106, 107 0A99 AM DETECTOR

SUPA3361A

STEREO EYE PL7

(6.3V40mA)

BOTTOM VIEW

AN217 IC101

3SK39

SVISN76115N IC102

2SA569 2SA721 2SC829 2SC839 2SC922

T2, 101 102, 103 L9

T1

2SA699

D701, 702 RVD10DC1 (BLACK)

D703, 704 RVD10DC1R (RED)

SVISTK027K IC601, 602

1 2 3 4 5 6 7 8 9 0

EQUIVALENT CIRCUIT SVISTK027K

SIGNAL METER

S103-1 S103-3 S103-5 S103-7

S103-2 S103-4 S103-6 S103-8

SELECTOR SWITCH

(L8) AM ANTENNA COIL

IC601 SVISTK027K

IC602 SVISTK027K

0.16	7.56	12.5	23.6	0
0	0.16	-23.4	-23.7	0

S601-1 S602-1 S601-2 S602-2

F2 2.5A F3 2.5A

MAIN L CH

REMOTE

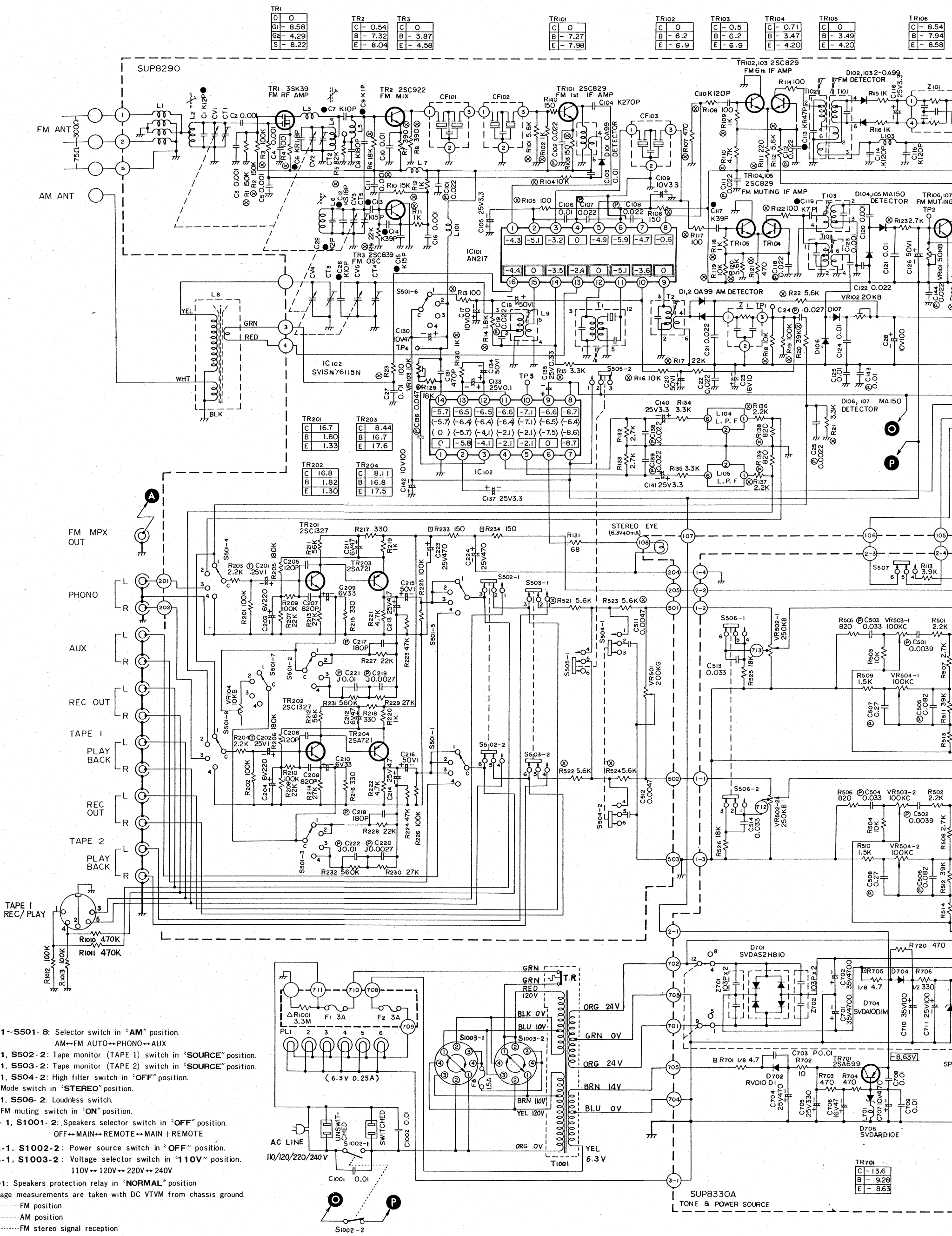
MAIN R CH

REMOTE

HEAD PHONE

Schematic Diagram ..... Model SA-5350

(This schematic diagram may be modified at any time with the d



Notes:

1. **S501-1~S501-8**: Selector switch in "**AM**" position.
   AM↔FM AUTO↔PHONO↔AUX
2. **S502-1, S502-2**: Tape monitor (TAPE 1) switch in "**SOURCE**" position.
3. **S503-1, S503-2**: Tape monitor (TAPE 2) switch in "**SOURCE**" position.
4. **S504-1, S504-2**: High filter switch in "**OFF**" position.
5. **S505**: Mode switch in "**STEREO**" position.
6. **S506-1, S506-2**: Loudness switch.
7. **S507**: FM muting switch in "**ON**" position.
8. **S1001-1, S1001-2**: Speakers selector switch in "**OFF**" position.
   OFF↔MAIN↔REMOTE↔MAIN+REMOTE
9. **S1002-1, S1002-2**: Power source switch in "**OFF**" position.
10. **S1003-1, S1003-2**: Voltage selector switch in "**110V**" position.
    110V↔120V↔220V↔240V
11. **RLY701**: Speakers protection relay in "**NORMAL**" position
12. DC voltage measurements are taken with DC VTVM from chassis ground.

▭ .....FM position
▭ .....AM position
〈 〉 .....FM stereo signal reception

hay be modified at any time with the development of new technology.)

TR104	
C	- 0.71
B	- 3.47
E	- 4.20

TR105	
C	0
B	- 3.49
E	- 4.20

TR106	
C	- 8.54
B	- 7.94
E	- 8.58

TR107	MUT ON	MUT OFF
C	- 2.51	- 0.05
B	- 7.9	- 8.53
E	- 8.58	- 8.58

R102,103 2SC829 FM 6th IF AMP
D102,103 2-0A99 FM DETECTOR
TR104,105 2SC829 FM MUTING IF AMP
T103
D104,105 MA150 DETECTOR
TR106,107 2SC945 FM MUTING SWITCH
D108 MA150 SWITCH
TP2
D107
D106
VR102 20KB
TP1
D106, 107 MA150 DETECTOR
A
P
101
102
103
SIGNAL METER

BOTTOM VIEW

AN217

3SK39

SVI-SN76115N

2SC922 2SC829 2SA684
2SC839 2SC945 2SC1318
2SA721 2SC1327 2SC828
2SA666A 2SC1573

T101~104 T2, L9

T1

2SA837 2SC1667

SVDAS2HB10

2SA794 2SC1567

2SA699

S1001-2 S1001-1

S501

TR601	
C	- 30.8
B	0
E	0.76

TR602	
C	- 30.1
B	0
E	0.76

TR603	
C	- 1.24
B	- 31.0
E	- 31.5

TR604	
C	- 1.11
B	- 0.54
E	- 1.23

TR605	
C	32.2
B	1.11
E	0.52

TR606	
C	- 32.5
B	- 1.23
E	- 0.64

TR607	
C	32.7
B	0.52
E	0

TR608	
C	- 32.7
B	- 0.64
E	0

TR601, 602 2SA666A-AD
TR603 2SC1573
TR604 2SC828
TR605 2SC1567
TR607 2SC1667

SUP8310 LEFT CH. MAIN AMP

SUP8310 RIGHT CH. MAIN AMP

TR606 2SA794
TR608 2SA837

S507

SOURCE

-32.7V

+32.7V

-8.63V

RLY701 SPEAKERS PROTECTION

D701 SVDAS2HB10

D702 RVDIO D1

D703 SVDA 10D1

D704 SVDA10D1M

D705 SVDAE0B0120

D706 SVDARD10E

TR702 2SA684

TR703,704 2SC1318

TR701 2SA699

TR701	
C	- 13.6
B	- 9.28
E	- 8.63

TR702	
C	0
B	32.4
E	32.4

TR703	
C	32.4
B	0
E	0

TR704	
C	32.4
B	0
E	0

MAIN L CH REMOTE

MAIN R CH REMOTE

HEAD PHONES

VR101: FM Muting Level Adjustment
VR102: FM Meter Adjustment
VR103: PLL Voltage Control Oscillator Adjustment
VR104: Separation Adjustment
VR501: Balance Control
VR502-1, VR502-2: Volume Control
VR503-1, VR503-2: Treble Control
VR504-1, VR504-2: Bass Control
VR601: Main Amplifier Icq Adjustment
⊗ mark resistors are printed carbon resistors.